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No. 20.

The Industry at the Cross-Roads

An Editorial on the Institute Plan

By Paul I. Aldrich

THE Development Plan which the Executive Committee of the Institute of American Meat Packers has ordered transmitted to the entire membership does not come too soon. This plan proposes to give direction and orderliness to the growth of the industry.

Since meat packing is the largest business in America, any adequate design for shaping its development should be drawn on a commensurate scale. For that reason, the plan may stagger some persons by its large proportions. For the same reason, its possibilities may seem limited to the remote future and unrelated to the immediate present.

This is a mistaken view.

Parts of the proposed programme could be accomplished today. Other parts of it have been needed urgently for some time. All of it could be accomplished tomorrow—that is, within a year or two—if the entire packing industry, by persons and by companies, should get behind the principle of the plan and manifest unity of viewpoint, unity of purpose and unity of effort.

What Was, What Is and What Might Be.

The gap between what the plan proposes the Institute shall be, and what the Institute is now, is not so much greater than the gap between what the Institute is now and what it was three years ago. There were few observers then who would have been willing to predict the progress subsequently achieved. Look backward for a moment—

Three years ago, before the Institute began its work, the packing industry found its public relations in deplorable condition. It was under fire—without cause, but under fire nevertheless—by the Government. It was assailed by some of the leading livestock producers, violently attacked by many newspapers, and condemned, even though unfairly, by a considerable share of the public. Meat itself was being slandered hurtfully, and the industry had no systematic contact or definite co-operation with those who distributed the great bulk of its products.

Today, the Government acknowledges publicly the cordial co-operation it has received from the packing industry. Packers and producers are co-operating vigorously along constructive lines of common interest. Definite co-operation with the retailers of meat has been established, and dealers and pack-

ers are working together to improve meat merchandising and increase meat consumption. Correct information about meat as an article of food is being established and circulated, as correct facts about the packing industry have been established and circulated.

Finally, through the National Live Stock and Meat Board, the whole meat and live stock industry, from farm to table, has been knitted up as a single unit to promote better service and a wider market.

One should contemplate this constructive progress and should contrast the conditions now obtaining with those existing three or four years ago, so that the eye may be in proper focus, before one attempts to measure the Institute Plan and its distance.

They Looked to the Future.

The packing industry, now the greatest of all, started in the cross-roads slaughterhouse. When it began to move forward, it made its later development possible by choosing the right fork of the road-the application of experiment, research, discovery, science, to practical problems. If Gustavus F. Swift had measured the possibilities of the refrigerator car in terms of the passing generation, or if P. D. Armour had surveyed the boundaries of meat packing with a shackle chain, the American packing industry would not be where it is today. Many of the things of which the industry is proudest-its efficiency, economy, reclamation of waste and extension of products-are attributable to the practical scientists and scientific practicalists who at one time and another have been drawn into the business. Their entry was assured when the little cross-roads slaughterhouse decided to choose the uphill branch of the road.

Today the Institute Plan—or rather, its underlying principle—puts the industry once more at the fork of the roads. One fork leads to company isolation, industrial disjunction, rule-of-thumb instruction. The other fork is industrial cooperation, associative research, correlated experience, communal effort, industrial unification.

Fortunately, however, the choice this time need not be made without guiding precedents. England has developed industrial research to no small degree, the stronger companies finding it advantageous to share good practice and sound experience with the weaker. Germany has gone even farther. For years, her industries as industries, not disassociated companies, have conducted research and provided technical educational institutions. Each of many German industries has become a unit on all matters of common interest, constructive purpose and social service.

Here at home, one industry after another has gone into associative research to carry on studies needed by all companies but too costly to be profitable to one company. The list of industries maintaining research laboratories is long and is growing longer—sure proof that the principle is a profitable one.

The Value of Research.

That is a point which the Committees of the Plan Commission will undoubtedly consider in developing their working programmes. There are certain associative research enterprises which, if undertaken, would pay fairly speedy returns in profits. Similar efforts have proved profitable to other industries. There is no reason why they should not prove profitable in this industry.

"It might be interesting," A. J. Wadhams, Chemical Director of E. I. du Pont de Nemours & Company, has said, "to state that the total expenditure of the du Pont Research Organization for the years 1912 to 1918 inclusive was \$6,051,000; and the calculable saving, disregarding those benefits which can not be figured in dollars and cents, though extremely important, amounts to \$82,401,000.

We should like to have the figures on results in some of the research laboratories maintained by whole industries—laboratories which carry out studies no individual company would undertake

In speaking of research work in the electrical utility field, John J. Carty, Vice President of the American Telephone and Telegraph Company, once said to the American Institute of Electrical Engineers:

"While vast sums are spent annually upon industrial research in these laboratories, I can say with authority that they return to the industries each year improvements in the art which, taken all together, have a value many times greater than the total cost of their production. Money expended in properly directed industrial research, conducted on scientific principles, is sure to bring to the industries a most generous return."

Those statements, of course, are arguments for research rather than for co-operative research. But in this case what is good for the part is good for the whole, and as British industrialists are learning so rapidly, improvement of an industry is valuable to the strongest as well as to the weakest individual member company of that industry. Some give more than others, but all get a fair repayment in value received.

In the Nature of Suggestion.

In reading the Institute Plan, THE NATIONAL PROVISIONER understands, as Mr. Wilson takes pains to point out, that a "plan drawn up today does not become a physical actuality tomorrow" and that the Institute Plan is offered as a principle for future application, guidance, and development. Nevertheless, THE NATIONAL PROVISIONER believes that many features of the plan and its central principle could be "sold" on a business man's basis—on a dollars and cents, yield-sheet basis—right now!

The writer of this editorial has heard practical men discussing the plan; men who, because of their proven practicality, are sometimes characterized, but not without affection, as "hard-boiled eggs." These practical men have expressed the highest enthusiasm for those phases of the plan which they might be expected to welcome least enthusiastically. A chairman of one of the Institute's technical committees, in commenting on the educational phases of the plan, exclaimed: "Oh, if I could only have had that."

A famous packinghouse superintendent, in discussing the proposal of practical courses, expressed a similar thought.

All of this means that the Institute Plan, if worked out and developed by the Plan Commission and its Committees, will fill a real need.

It will extend and improve the service of the packing industry to the public and will prove a social benefit. It will make money for the industry. It will add greater dignity to the business of packing meat.

The facts favor the principle of the Plan. To state it is to forward it. Mr. Wilson's courageous action in bringing it out at this time will start discussion, marshal thought, stimulate effort and create co-operation that ultimately—and sooner perhaps than he may expect—will result in the creation of an Institute akin, in principle at least, to that which he has outlined broadly. The Plan Commissioners and Committee Chairmen whose appointment the Executive Committee has ratified are not the sort of men who ever turn back when they have set their hands to a good task.

To them and their colleagues the future of an industry has, in a sense, been intrusted. On the basis of what they report, the Institute in full convention will say which fork of the road shall be followed by the greatest business in the world, and how far.

As a matter of news interest to the entire industry, the proposed Development Plan is printed in full in this issue.

The Institute Plan Commission

The commission appointed to consider this plan is as follows:

Chairman—Thomas E. Wilson, ex-officio. Vice-Chairmen—Edward Morris, C. B. Heinemann, S. T. Nash, E. A. Cudahy, Jr.

Executive Secretary—W. W. Woods.
Chairman, Committee on Ways and
Means—Arthur Meeker; vice-chairman, J.
C. Dold.

Chairman, Committee on Practical Research—A. W. Cushman; vice-chairman, M. D. Harding.

Chairman, Committee on Building Plan

G. F. Swift, Jr.; vice-chairman, C. B.

Heinemann.

Chairman, Committee on Educational Plans—Oscar G. Mayer; vice-chairman, L. D. H. Weld.

Chairman, Committee on Scientific Research—Arthur Lowenstein; vice-chairman, W. D. Richardson.

Chairman, Committee on Charter-Wal-

ter H. Saunders; vice-chairman, C. J. Faulkner.

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Committee on Building Plans—G. F. Swift, Jr., chairman; C. B. Heinemann, vice-chairman; Thomas Creigh, A. D. White, Oscar G. Mayer, Patrick Brennan, C. E. Herrick, E. L. Roy, E. S. Waterbury, R. D. McManus.

Committee on Scientific Research—Arthur Lowenstein, chairman; W. D. Rich-

ardson, vice-chairman; Paul Rudnick, L. M. Tolman, E. B. Forbes, J. J. Vollertsen, Joseph Lengfeld.

Committee on Practical Research—Arthur Cushman, chairman; M. D. Harding, vice-chairman; S. C. Frazee, W. B. Farris, R. F. Eagle, J. G. Cownie, Thomas R. Buckham, H. A. Timmins, J. W. Mock, J. J. Hayes, F. J. Gardner, John Roberton, H. W. Kruger, F. C. McDowall, F. S. Baker, Donald MacKenzie, Barney Baker, A. R. Fay, J. H. Agnew, E. J. Poirot.

Committee on Educational Plans—Oscar G. Mayer, chairman; L. D. H. Weld, vice-chairman; R. J. H. De Loach, John Calder, A. W. Cushman, E. B. Forbes, J. J. Vollertsen, H. G. Ellerd, E. C. Merritt, J. H. Bliss, J. A. Hawkinson, R. W. Moody, E. N. Wentworth, H. H. Swift, S. T. Nash, R. S. Sinclair, T. Davis Hill, G. H. Nuckolls.

Committee on Charter—Walter H. Saunders, chairman; C. J. Faulkner, vice-chairman; J. P. Lightfoot.

The Future of the Institute

A Development Plan Submitted to the Institute of American Meat Packers

By Thomas E. Wilson, President

Fellow Members of the Institute of American Meat Packers:

The packing industry has for some time enjoyed the distinction of being the leading industry in this country when measured by the value of its products.

It should be a matter of personal pride and loyal duty to every one engaged in the business to exert every reasonable effort not only to maintain this position of commercial and industrial pre-eminence in our own country, but also to maintain a similar position in relation to the industries of the world.

These considerations have prompted me to remind you of what various industries are now doing in this and other countries to advance the science of efficient and economical production, and to submit for your carnest consideration a plan for the future development of the Institute.

The Institute of American Meat Pack-

The Institute of American Meat Packers may be said to have passed the test stage. Its usefulness as a permanent institution has been fully demonstrated even in the limited field of its past activities. But there is a larger sphere of usefulness within our reach, the possibilities of which can scarcely be estimated.

Packers Must Plan Ahead.

If the packing industry is to keep abreast of the marching forces of progress and maintain its present position, it seems to me necessary now to give thought to utilizing the forces which we doubtless can marshal and to recast our plans along the lines of enlarged activities and broader service.

It is well known among you that I expect to retire from the executive direction of the Institute at the close of my present term. But this resolution in no sense lessens my interest in the future growth and usefulness of our great organization.

For the same reason, I feel it to be an essential part of my obligation to the membership to set down my observations of what is possible to the Institute; what is lacking in it; and, more particularly, what is needed of it by the great industry which makes up its constituency. The first three years of the Institute's existence furnish a guide to its proper destiny; to the direction which its future development should take; and since it has been my privilege to observe the shortcomings, the difficulties and the achievements of the Institute from the vantage point of one who administers its policies, I deem it my duty to summarize the Institute's experience and to formulate out of that experience, for consideration of the membership, a plan by which definite direction—a goal, really—can be given to the future growth of the Institute.

It is as necessary for an industry to plan its growth as it is for a city; and just as city-plans have become a matter of course in America, industry-plans have become commonplace in Europe. Although a city-plan drawn up today does not become a physical actuality tomorrow, yet at an early stage of civic development, it is possible for a municipality to blue-print its future progress wisely and practicably.

Past Experience Guide to Plan.

So it is, too, with an industry; and by virtue of its acquired experience, the Institute, representing the largest industry in the United States, is today in position

to shape and formulate its own destiny. If such formulation can be effected and accepted, the results will be as definite as the distinction between a city whose growth has been directed by early cowpaths and a city whose growth has been planned.

Moreover, a plan not only guides growth; it also stimulates growth and makes growth possible. In fact, some of the most beautiful civic developments in America — museums, parks, boulevards, roads, harbors—would not now be in existence but for a plan formulated well in advance. In some cases, the very land upon which civic improvements stand has been made as a consequence of a cityplan adopted years previously. Instances of the same sort with respect to industry probably could be cited.

But Experience Need Not Limit.

In other words, past and present experience should guide, but present conditions should not limit an industry-plan. Nor, since a plan itself is not costly, should



THOMAS E. WILSON.

President of the Institute, and Chairman of the Plan Commission.

adversity, present or recent, influence the blue-printing of an industry's future nor justify the draftsman in delaying his task. As in the case of municipalities so in industry, a catastrophic condition may even occasion the adoption of a plan for growth.

Let me cite a case in point:

Surely no one would deny that German industries have suffered misfortune exceeding in their turbulence the sudden changes which have occurred in the industrial situation here. Yet Germany has not failed to go ahead with her industryplanning; in fact, the reverses suffered by her industries, with their loss of foreign markets, certainly have not delayed and apparently have stimulated efforts at industry-planning. Witness this circumstance: At the very time we were holding our Convention last year—a year of depression—a great American periodical was announcing the fact that in Germany, with her industries harder hit and her foreign markets lost, the duty of creating

technical schools and research institutes had been imposed on the great industries, and that fourteen commissions were sitting in industrial centers "to create new institutions or improve those already in existence."

Present Needs Sound Planning.

I mention these undertakings in Germany, to which further reference will be made later, to anticipate the thought on the part of any reader that this is no time to enter into new plans. The answer, of course, is that when things are at the bottom there is more necessity for sound planning than ever before. We have an opportunity to build solidly from the bottom upward. The only danger in such a time is not that we may commit ourselves to a plan which seems too large when viewed from our present situation, but that we may commit ourselves to a plan which will prove too small when applied to the future necessities and possibilities of our industry. This latter danger, in my opinion, is the only argument that can be urged against the Institute's attempting now to chart its future; and it is difficult to believe that anyone would permit the constricted possibilities of the present to limit his view of the Institute's future; that is, of the future of his industry.

Institute Increases Heritage.

In this connection, too, I hope it is permissible to say that this whole subject has been very close to my heart since the day when the American Meat Packers' Association was reorganized as the Institute of American Meat Packers. It is because I am so intensely interested in the development of the industry that I have ventured to address you so informally and in the first person. In my opinion none of us should have a third-person attitude toward the Institute. It should ever be "my Institute" and "your Institute," possessed by each of us in equal measure and drawing from each of us an equal share of cordial interest and active zeal.

The Institute has added so much to the heritage we packers shall pass down to our children and our children's children that we should be ungrateful indeed were our feeling toward it merely the cold sentiment of commerce. If the Institute has not added dignity to the packing industry, it has at least revealed the just claim of the industry to a higher dignity; has given effect to that claim, and increased the prestige in which our business is held. Our service has become better understood by the public, and by those from whom we buy our raw materials as well as by those to whom we sell our products. The industry—from producer to consumer—has been knitted together for better public service.

Progress Up to Packers.

Meat packers are no longer regarded merely as large-scale butchers but as efficient industrialists performing an intricate service in a scientific way. The little cross-roads slaughterhouse, dumping its by-products through a hole in the floor to the hogs beneath, has become the biggest industry in America, serving the nation, serving the world, and serving them well. Through the Institute this service has not only been improved but made understood. The businesses with which we are identified are in better status now. Shall they not make further progress? Shall we not hand them down to our sons with a maximum of service, of merit and

of prestige? Or shall we stop where we are'

are?

It is for you to say. Not much more should be taken on under our present plan. The rate of dues seems as high as it should be. Under our experimental plan, which has been in successful operation for nearly three years, the Institute's expansion is nearing a definite limit. Sooner or later, the membership must accept a static situation or make adapta-tions in the original plan. It is time to look ahead now, and there-

fore it is my duty to submit to you counsel of concrete sort and proposals of definite form. This I shall do in Chapter IV of this plan. Just here, however, I should like to summarize, generally and rather briefly, a few of the important things accomplished by the Institute.

II—Achievements of the Institute

The Institute of American Meat Packers, established by reorganization of the American Meat Packers' Association, was created in July, 1919. At the next annual Convention, held about two months later in Atlantic City, reorganization was formally completed. The Institute, therefore, is only about thirty months old.

But it has come a long way in that time. If you will refer to the 1919 Convention issue of THE NATIONAL PROVISIONER and then to the 1921 Convention issue, I think you will gain an astonishing realiza-tion of the progress our industrial asso-

tion of the progress our industrial asso-ciation has made for us.

Let me cite a few examples of the changes which have been effected. It would be hopeless, of course, to attempt to illustrate every phase of the Institute's accomplishments, but a few conspicuous, contrasting cases may serve to show the significance of the results achieved, with especial reference to the industry's rela-tions with the retailers, the public and tions with the retailers, the public and the live stock producers.

Producer and Packer Relations.

At the reorganization Convention, that of 1919, the report of our executive committee summed up the relations between the packers and the livestock producers in this brief sentence:

"During the last year it has been found impossible to discuss with the producers

impossible to discuss with the producers of livestock problems common both to themselves and to the packing industry."

That was little more than two years ago. This year, your President and other representatives of the Institute have received numerous invitations to address associations of livestock producers; and the Institute representing the meat packing industry, has been invited to participate with the leading livestock associations in forming and conducting a Na-



S. T. NASH, Vice Chairman Plan Commission

tional Livestock and Meat Board. On important problems common to packer and producer, we are co-operating vigorously and sincerely with those who were our bitterest critics at the time the Institute was organized but who are now reciprocating our honest co-operation.

When the Institute was founded, the industry was under severe attack and was grossly misunderstood. The people had been told, and many of them believed, that the wholesale prices of meat was at extortionate levels.

Today, speaking generally, there is no complaint about the wholesale price of meat. The public knows it is cheap.

Institute and Public Opinion.

That is no mere casual result. Since the formation of the Institute, it has given to the press hundreds of statements dealing with essential facts about the price of meat, as well as the economics and service of the packing industry. These statements have been read by millions of consumers; in fact, single statements have been read by millions of consumers. Moreover, the Institute has used other means—booklets, speeches, exhibits, mo-tion pictures, et cetera—to interpret our



EDWARD MORRIS. Vice Chairman Plan Commission.

And today, as a consequence of the Institute's constructive work in our relations with the public, you and I can take still more pride in being packers.

It is plain, from what has been said in a general way, how much the Institute has done for the industry with respect to the public and with respect to the producer. But how about the retailer?

Improved Retailer Relations.

In September, 1919, the month in which the Association formally became the In-stitute, the packing industry, as such, had stitute, the packing industry, as such, had no relations with those who distributed nearly all of its products. We apparently had lost sight of the fact that, although one butcher might not be a significant factor in our public relations and in our prosperity, one hundred and twenty-four thousand butchers constituted a factor which must be considered seriously and constructively: constructively.

Today packers and retailers of meat are co-operating vigorously to promote better merchandising, increased consumption and more cordial trade relations. Meat Councils are in operation in six cities, and addi-tional cities are being organized as fast as local packers find it agreeable to meet the retailers' request that the Council plan be extended.

Furthermore, a National Association of Meat Councils has been formed to co-ordinate the work of the local Councils and to make possible by joint effort accomplishments that might be too pretentious for one group. It is confidently expected that highly significant results in the way of more rapid movement of sluggish cuts and in the way of improved merchandis-ing will be obtained as a consequence of this packer-dealer co-operation. Two very important plans having to do with these matters are under satisfactory develop-



B. HEINEMANN. Vice Chairman Plan Commission.

A Two-Year Contrast.

But I do not wish to go into detail. What I have said is sufficient to indicate that, whereas the industry formerly had relations with the distributors of its products—the only persons who come into contact with its ultimate customers—it now has close co-operation with these men.

To reiterate:

When the Institute was established, the onsuming public and was blamed for the high price of meat. It had no co-operative relations with those who sold its products to the consumers, and it not only lacked utterly the co-operation of livestock producers, but also was being attacked by some of their most influential leaders.

That situation existed less than thirty months ago. If we look back at it and contrast it with the conditions existing today, we shall appreciate more what the Institute has done for us.

All of the things mentioned so far have to do with our public relations; that is to say, our relations with those outside of the industry: consumers, retail meat dealers and livestock producers.

Similar progress, however, has been made in the case of intra-industry matters. Industrial service has been the keynote of the Institute's work within the industry.

Praise Old Association Work.

Such work would not have been possible but for those pioneers and their followers but for those pioneers and their followers who knitted up the industry and made it a unit, bringing this about on a more or less social basis. I refer to those who founded the American Meat Packers' Association; to them and to others who carried it formed the interest of the standard o ried it forward after its foundation.

The Association was an essential stage in the development of the industry. It rendered indispensable service in bringing packers together for interchange of experience and for communal efforts in certain directions. It made a unit of the packing industry; and without its important work and harmonizing influence through a goodly number of years, the organization of the Institute would have been impossible. I yield to no one in my respect for the work of our association under its former name and plan.

I mention this here so emphatically in order that I may not be misunderstood when I say that the Convention proceedings of 1921 when contrasted with the Convention proceedings of 1919 show in almost startling fashion the progress achieved by the Institute within the industry. In 1919 we were primarily a trade association; in 1921, we had begun to march toward the goal indicated by our new title. In 1919, our proceedings were given over largely to addresses by estimable gentlemen outside of the packing in-



ARTHUR MEEKER,

Chairman Committee on Ways and Means. dustry; in 1921, our proceedings were devoted wholly to reports, by men in the industry, of research and service that had been or could be rendered to the membership by our elaborate system of practical and technical committees.

The Convention of 1919 was the expression of a hope and the formulation of a plan; the Convention of 1921 was the redemption of a promise and a report of progress. If you will get out the Convention issues of THE NATIONAL PROVISIONER for these two years and look through them, you will find the experient sufficiently interesting and illuminating to repay you for your trouble.

Committees' Important Work.

It would be unwise to try to give a detailed summary here of the Committee work of the Institute. Our Committees all made full reports at the Convention. You know that the Committee on Packing House Practice has solved operating problems for individual companies requesting its aid.

The Committee on Nutrition is gradually and successfully establishing the proper place of meat in the diet, and a specialist in nutrition is giving his full time to this work. Through efforts already made and by utilization of facts about meat already compiled, national advertisers who were disparaging meat to millions of readers have been dissuaded from using unfair copy of this sort.

Information has been placed at the disposal of members wherewith they may educate their own sales forces regarding the merits of meat as a food. Contact is being established with the foremost nutritional scientists in the country; educational material is being supplied to dietists and other technicians, and meat is surely winning a better standing with those whose judgments fix popular opinion.

Money has been saved to member companies by the effective efforts of our Committee on Livestock Handling Losses. Its film, "Livestock Losses and How to Reduce Them," is eagerly sought by agricultural colleges for use through their extension departments. Meetings have been held and lectures and courses given on prevention of livestock losses. For example, the film was shown and a lecture delivered at short courses for the managers of co-operative shipping associations given under the auspices of Iowa State College of Agriculture.

College of Agriculture.
Indeed, this book could be filled with a specific statement of the work done by Institute Committees—the Committee to Confer with Retail Dealers and Trade Associations, Committee on Public Relations, Legal Committee, Committee to Confer

with Government Officials, Committee on Standardized Containers, Committee on Local Deliveries, Committee on Standardized Cost Accounting, the Traffic Committee, Committee on Improved Livestock Breeding, and the others.

Now Time to Go for Bigger Things.

But you know in general the work of your Committees and of the resident staff of the Institute, at Chicago, at Washington and at New York. You know that this work had been developed rapidly and vigorously and that it has been done in behalf of the industry and for its benefit. Great progress has been made; we have traveled a considerable distance swiftly—more swiftly perhaps than some of us contemplated. It is time now to go further; to go on to bigger things.

more swiftly perhaps than some of us contemplated. It is time now to go further; to go on to bigger things.

It is apparent that we packers who make up the membership of the Institute started in the right direction. Now let us quicken our gait, broaden the road and carry our industry on and upward to still higher achievements.

III—Present Trend of the Industry's Development

Before outlining any plan for the future development of the Institute, let me invite your consideration of the methods by which the packing industry is now evolving; by which it builds up and renews its personnel, develops its human material, effects its progress, and passes along its cumulative experience from generation to generation.



J. C. DOLD, Vice Chairman Committee on Ways and Means.

In this connection as well as at other points in this memorandum, it will be well to write as bluntly and frankly as need be. Moreover, I shall not take the time—yours or mine—to note all exceptions, but shall generalize somewhat fully, painting in the general idea with pretty broad strokes and relying on the reader to interject such qualifications as may be needed.

1. Duplication of Research Work.—
Under the present system, many companies duplicate a great deal of research work which could be carried on at one cost under unified auspices. Not all research work, of course, could be so unified, since some investigations are private discoveries and since some companies are proceeding on problems not common to others. But a great deal of it could be "pooled." A number of experts associated with the industry, responding independently of one another to an informal inquiry by the Bureau of Public Relations, have

stated that a great monetary saving could be effected if certain tests and research work could be carried on under joint auspices instead of being duplicated by various companies. These experts stated that this might be done without revealing trade secrets or sacrificing individual discoveries.

A research institution in the packing industry, therefore, would save a good deal of expense of duplicating identical technical work done by various companies; so, too, with tests of metals and equipment which are being made constantly and which involve no originality.

2. Limitation of Research Work,—Individual companies have a tendency, enforced by financial necessities, to limit research work to lines calculated to become profitable fairly quickly.

Moreover, there may be some research work the expense of which if borne by one company would not be compensated by the results, but which if borne by the industry, with results shared, would com-



E. A. CUDAHY, JR., Vice Chairman Plan Commission.

pensate each company for its portion of the expense.

3. Development of Each Company Limited by Its Own Experience.—Obviously, the development of each company is limited by the results of its own experience. Moreover, a company sometimes disburses

a good deal of money in learning what development is impracticable, and a number of companies frequently are duplicating identical work at the same time. Development could be extended and mistakes made fewer and less costly if all companies shared an agreed part of their industrial and scientific experience, as is being done in Germany and, to an extent, England. (They should retain to themselyes, however, the results acquired along original lines.)

4. Industrial Experience Not Systematized.—No packing company, so far as I know, has any adequate system for perpetuating and handing down to the next generation in readily available form the sum of its experience. If this experience could be reduced to systematic book form, knowledge now requiring twenty years to gain might be gained in one. It would be interesting, for example, to take a census of the books in any packing company's



G. F. SWIFT, JR., Chairman Committee on Building Plans.

library on packing house practice. I imagine they would not fill many rooms. Yet the packing industry is the largest industry in the United States and should have a tremendous practical bibliography, as is the case with any other technical industry.

5. Future Limited by Present.—
The meat packing industry today is evolving its future much as a spider spins its web—out of itself. Executives are recruited from origins much like those of several generations ago. The young clerk of today becomes the traffic manager of tomorrow; the beginning cattle buyer of yesterday is the head of the beef department of twenty years hence—just as was the case two decades ago. And there is a great deal to be said for this system and the opportunities for advancement it offers. It really is one of the glories of our industry. There is something highly inspiring about it—a fine rebuke to snobbery.

But the unfortunate aspect is the fact that the human material which the industry draws into its beginning office positions today shows little improvement in the way of special fitness and training over the human material of twenty years ago, except such improvement as can be credited to the progress of public education and not to the industry itself.

tion and not to the industry itself.

There also is the further fact that the stretch of time required for the worthy beginner to become a departmental executive probably is as great as it ever was. Speaking generally, there is still little provision, either preliminary or concurrent, for hastening the able man's advance. (There are a few exceptions.) He can learn only so rapidly as his mistakes and his experience teach him. Unless he happens to be of exceptional capability his knowledge ultimately is limited to the

knowledge of those whom he has succeeded along his way upward. Under the casual mouth-to-ear system now in vogue, progress is sometimes slow—and whenever an able man progresses slowly the company for which he works has suffered a loss of notential service.

loss of potential service.

At present, an ambitious man has only one source to which to go for knowledge and that is to the men about and above him. In a sense, then, the future of the packing industry, as measured by the development of its personnel, is limited by the present. The man below can learn little more—and no more rapidly—than the man above can teach him.

So much for the beginners.

6. Many Departmental Executives Have Specialized Too Closely.—The present system of developing departmental executives, in the average case, brings a man gradually from the bottom to the top of one branch of the business. (There are exceptions, of course, and a man often holds a number of diverse small positions; but when his progress starts it generally proceeds through one branch of the business.) As a result, some departmental executives have had inadequate opportunities for broadening their perspective. There is urgent need of providing facilities through which knowledge of the inter-relations of fundamental departments and their functions as well as the relation of the business as a whole to world factors and social economics, can be acquired and constantly broadened.

The fact that many able men began their careers in the industry without broad training for the important duties later to be performed and have been eminently successful is a testimonial to their intiative and adaptability. But how much

easier it would have been for each, had the industry provided means whereby their experiences could have been broadened by preliminary or concurrent training! There are many of us who would have given a great deal in our earlier careers for an opportunity to supplement systematically whatever knowledge of the packing industry we gained from our daily routine.

7. No Educational Feeder of Trained Men.—Just as there is no adequate provision for giving a broader outlook to men of promise but of limited training already engaged in the packing industry, so, too, there is no way by which the industry can draw to itself well-trained beginners or specially trained scientists. Like other industries, the packing industry draws to it a number of college-educated men. But unlike other industries, the packing industry has no way of drawing to it college-trained men whose training fits them especially for this industry. The steel industry, the textile industry, the mining industry, and others draw men whose college educations have been designed to make them especially serviceable to these industries. Not so with meat packing. The college man who comes to meat packing would feel as much at home in any of a half-dozen other industries.

8. The Industry Lacks a Central, Distinctive Home.—The official organization of the largest industry in America can hardly live up to its ultimate opportunities as long as it is housed in rented space; space, moreover, which is of small dimensions in a building shared with a heterogeneous tenantry. As long as this condition continues, the industry will not feel as freely and emphatically as it should that in the institute it has a central permanent home of its own.

IV— An Industry Plan for the Institute

For a considerable time, I have considered the advisability of proposing a goal at which the trade organization of the packing industry might aim with respect to its further development as an institute.

What I had in mind, however, was so far in advance of the present status of the institute that I hesitated to put it before you until such time as the progress of the institute should bring its future possibilities within closer range. Yet, even then, it seemed time to take thought of future development in order that definite direction might be given to the growth of the institute, however slow that growth might have to be.

Since that time various indications have fostered the conviction not only that a structural plan can be worked out as something toward which we can shape our efforts but also that definite impetus can be given within the next year or two—possibly within the next month or two—to the accomplishment of the incipient features of what may seem, on first thought, a design of rather staggering proportions.

Institute's Possibilities.

There never has been any doubt in my mind regarding the potential development of the institute into an institution whose functions and service should be full justification of its title in the strict definition of the term. I had in mind such a future for the institute at the time I interested myself, with some of you who read this, in the reorganization of the American Meat Packers' Association. But it seemed then and for a good while afterwards that it might be some time before we, or other industrial associations, as a group, realized the possibilities of an industry organized for the common service—service to one another and service to the public.

Such a realization, however, has come faster than anyone expected; has come both outside and inside of the packing industry. Under a separate chapter heading,

I shall set down some of the undertakings and achievements of other industries along the line of industry-planning, industrial research, and technical education. Meanwhile, you may be interested in some per-



W. W. WOODS, Executive Secretary.

tinent expressions and tendencies within the packing industry.

Our Bureau of Public Relations early took the stand that the institute properly was to be construed as a service and research organization as well as a trade association; and the directors of the bureau have developed its activities in accordance with this policy. In fact, the service and research aspects—the intra-industry aspect—of the bureau's work have been developed to such a point that its present director has been pressing on the president of the institute and on the chairman of the Committee on Public Relations the advisability of changing the name of the bureau in accordance with the reapportioned emphasis on the various parts of its work and on the work of the

portioned emphasis on the various parts of its work and on the work of the several committees to which it renders special counsel and service.

Moreover, the active vice-president of the institute, personally counseling with and personally harmonizing the policies of of the committees of the institute, has given a similar direction to the com-mittee work, until a great many of the mittee work, until a great many of the committees far transcend in their activites the functions of the usual advisory groups appointed by the ordinary trade association. They have actively stressed the service phase of their work. Our able resident vice-president, in addition to his work with committees, has individually given valuable technical service and advice at the membership. to the membership.

Work Developed in Service.

I mention these circumstances merely to show that the natural development of the institute's activities is along the line of what I have intended to propose in the form of a fully articulated development plan as soon as the sentiment of the mem-

bership advised my doing so.

That sentiment seems to have developed with rapidity. I am sure you must have noticed, as I did, the expression by different speakers at our last annual meet-ing of an opinion that the institute should proceed much farther along the lines of industrial research and technical education; and that it should make some definite and systematic provision for correlating and perpetuating existing knowledge of

and perpetuating existing knowledge of packing house practice.

This latter point was brought out strongly by Mr. Arthur Cushman and Mr. M. D. Harding, neither of whom could be called a mere theorist. Their suggestion soon was supported vigorously by Mr. R. S. Sinclair, who suggested a correspondence course in certain packing house

Similar opinions have been voiced by her men, both practical experts and scientists.

Institute Can Have Wide Scope.

All of these expressions are straws that show the way the wind is blowing; and, though they represent individual ideas pertaining to a single subject rather than a comprehensive plan, yet, taken all together and constituting one of the rare instances in which practical experts and scientists seem fully to agree, they em-

Map the Future!

It is as necessary for an industry to plan its growth as it is for a city; and just as city-plans have become a mat-ter of course in America, industryplans have become commonplace in Europe. Although a city-plan drawn up today does not become a physical stage of civic development, it is possible for a municipality to blue-print its future progress wisely and practicably.

So it is, too, with an industry; and by virtue of its acquired experience, the Institute, representing the largest industry in the United States, is today in position to shape and formulate its own destiny. If such formulation can be effected and accepted, the results will be as definite as the distinction between a city whose growth has been directed by early cow-paths and a city whose growth has been planned.—
Thomas E. Wilson. belden me to formulate and lay before you what I have had in mind as a possible working plan for the future development of the institute.

In my opinion, the institute ultimately should become an organization which shall be a combined trade association, industrial museum, research institute and educational institution.

As an educational institution it should do at least three things:

a. Provide broad but specialized colle-giate education for young men intending to enter the packing industry, just as the Colorado School of Mines provides such training for young men expecting to begin their work in the mining industry

b. Furnish special training to intermediate sub-executives (prospective departmental heads) of promise already engaged in the industry.



OSCAR G. MAYER Chairman Committee on Educational Plan.

- e. Conduct a continuation school for plant employes and junior office help.
- 2. As a research institution, it should: a. Develop and systematize a body of scientific and practical data for the service of the whole industry.
- b. Carry on agreed researches into new scientific and practical problems common to all packers, without infringing on re-search along individual lines being done by specific companies.
- c. Conduct experiments on the extension c. Conduct experiments on the extension of products and reclamation of materials (except where such experiments would infringe on original work done by some individual company).
- d. Collate and disseminate information concerning discoveries and developments having relation to the packing industry, without invading material developed by particular companies.
- e. Conduct merchandising surveys and
- commercial research work.

 f. Discover waste and means of elimi-
- nating it.
 g. Test materials and equipment offered to the industry.
- 3. As a trade association, it should continue to do what the institute is now doing in this direction.
- 4. As an industrial museum, it provide space for permanent exhibits of models showing modern packing house operations, specimens and processes; and it erations, specimens and processes; and it should rent out space for exhibits of materials of industrial value, and for a permanent exhibit of packing house machinery and supplies—a sort of scientific museum and centralized market place, a gigantic permanent show window, conveniently located (being at Chicago) where packers from all parts of the country may

Is It Your Institute?

In my opinion none of us should have a third-person attitude toward the Institute. It should ever be "my Insti-tute," and "your Institute," possessed by each of us in equal measure and drawing from each of us an equal share of cordial interest and active zeal.

The Institute has added so much to the heritage we packers shall pass down to our children and our children's children that we should be ungrateful indeed were our feeling toward it merely the cold sentiment of com-

merce.

If the Institute has not added dignity to the packing industry, it has at least revealed the just claim of the industry to a higher dignity; has given effect to that claim, and increased the prestige in which our business is held. Our service has become better under-stood by the public, and by those from whom we buy our raw materials as well as by those to whom we sell our products. The industry—from producer to consumer—has been knitted together for better public service.

Thomas E. Wilson.

come and view samples before making purchases and installments.

Different Instruction Given.

Instruction in such an institution as that outlined would be divided naturally into instruction for young men intending to enter the packing industry and instruction for men already engaged in the packing industry but desirous of broadening their knowledge and of qualifying for

effective service.

In the latter case—except for the continuation school—instruction probably would be given almost wholly through extension classes (probably at night, like most ex-tension classes) by men actively engaged in the packing industry and having full-time duties therein. (Many of the lecturers at the Northwestern University School of Commerce and at the New York University School of Commerce hold regular working positions in business and indus-try.) A written copy of all lectures, with auxiliary aids, should be furnished to the institute for dissemination to the membership as a part of well articulated and comprehensive correspondence courses, covering thoroughly by mail all instruction given personally at Chicago.

Instruction for persons intending to enter the packing industry should be given largely by men devoting their full time to teaching. This sort of pedagogy, except as to subjects taught, probably would not differ greatly from that given in other technical collegiate institutions. Instruction and practical work in industry could be co-ordinated as has been done at the University of Cincinnati.

It would require a period of study and investigation for anyone to map out wisely the proper sort of full curriculum for this phase of the instruction, but in order to concretize the idea, it may be worth while to guess at some of the subjects the studies young men intending to enter the industry should include:

- 1. English Composition, with special reference to Business English.
- 2-English Literature-A general survev.
- Rhetoric.
- Romance Languages. 4.
- German.
- 6. Chemistry.
 - a. General. b. Industrial.
 - c. Food.
- Economics Politics (Civics).
- International Relations.
- 10. Advanced Physical Geography.

- 11. Foreign Trade.
- 12 Statistics
- Library Methods.
- Cost Accounting, with special reference to Packing House Accounting Problems
- Commercial Law
- 16 Banking and Currency.
- Personnel Management. Industrial Relations.
- Efficiency Engineering
- Business Administration
- Retail Merchandising.
- Commercial Research. Advertising and Selling.
- Marketing Methods, with special ref-erence to Packing House Problems.
- Transportation.
 Packing House Architecture.
- Structural Engineering, with special reference to Packing House Prob-
- 28. Sanitary Engineering.



ARTHUR CUSHMAN, Chairman Committee on Practical Research.

29. Physical Engineering.

- a. Refrigeration. b. Fuel Conservation, etc.
- Meat Cutting.
- 31. Meat Curing. 32. Waste Prevention.
- 33 Scientific Delivery Animal Husbandry

I submit that, on the average, a young man entering the packing industry after graduation from such an institution would be more valuable than a young man now entering the industry either without col-legiate education or with collegiate education which had no special relation to the needs of the packing industry.

Such an institution, I think, would feed into the packing industry hundreds of young men who would accept approximately the same salaries now paid in beginning positions but who would render highly effective service and some of whom forge ahead rapidly. When those who did forge ahead became sub-execuor departmental executives, their outlook would be broadened by their funoutlook would be broadened by their fun-damental training. To a degree, the aver-age capability on the industry's payroll would be increased. This should mean money saved; particularly so, where the increase in capability occurred in responsible positions

Instruction and Practice Work.

In connection with providing instruction for young men intending to enter the infor young men intending to enter the in-dustry (and thereby encouraging a high type of young men to enter it) there would also be excellent opportunity for co-ordi-nating education and industry. This has been done in the case of a number of other industries and technical schools. In come engineering colleges, the undergrad-

uate must spend a certain number of months, within his educational period, in the industry which he expects to enter after graduation. This is made prerequisite to his degree.

It is unnecessary to point out in detail the reaction on the industry itself, and later on the public, which an influx of young men of the type indicated would set The direct contact with education itself would be worth while, and it is con-ceivable that the development of the institute on educational lines (as well as research and trade) might result in a number of colleges adding to their structure schools of fcod engineering, just as they have added schools of chemical engi-

neering, mining engineering, etc.

And why not—if the meat packing industry alone is larger than any other industry in the United States?

It seems to me that such a development not only would improve the packing indus-try but might also further enhance its standing.

What has been said before on the point indicated in this heading is perhaps sufficient. The courses should be operated on an extension basis and the instruction, given by men active in the industry, should be along practical lines

The possibilities of the institute as a research institution also have been sketched pretty fully in treating the pres-ent system and in outlining the proposed future development of the institute.

Assuming, then, for argument's sake, it desirable for the institute to become a combined trade association, industrial mu-seum, research institute and educational institution, only the question of practica-bility remains to be considered.

V— How to Make A Substantial Start

A start toward effecting the plan can be made either by attacking the task piecemeal or by formulating a working plan for the sort of institute proposed and then bringing it into being in full bloom.

In either case, institute dues would have to be supplemented by endowments and fellowships. The constitution and by-laws of the Institute might be changed to provide for individual life memberships, contributory memberships and founders' memberships, under which any packer or packing company could donate to the Institute in addition to dues such outright sums, annuities or fellowships as he chose. In creating a fellowship, a foundation or an endowment, the donor could specify the use and administration of his gift. Likewise, the Institute could invite donations for specific purposes.

It would be a calamity, of course, if the

gifts were personalized in such a way that the institute should seem, erroneously, to belong to one member more than another, or that a donor should withdraw his interest from the general activities of the insti-tute and boost only the object of his own generosity.

How Much Money Is Needed.

As to the money needed:

Most educational institutions-there are exceptions, of course-have been founded on fairly modest sums. This is shown by the present size of the endowments which some well-known institutions have accumulated after many years. For example:

Institution. Founded En Rose Polytechnic Institute 1875 \$1,100,000 Rensselaer Polytechnic . 1824 Stevens Institute of Tech-1.874.000

nology Rutgers College (Tech'al) 1776 1,312,000

Washington and Lee University, founded 1749, still has an endowment of less than \$1,000,000.

Some of the foregoing institutions, however, receive a certain amount of state support in addition to the revenue from support in addition to the revenue from students' fees. (Fees also would be charged by the educational branch of the Institute of American Meat Packers.)

Of course, a million dollars is a large sum, and it seems particularly large in the packing industry at this time.

Yet costs must be measured in relation to the size of our industry in relation to

to the size of our industry, in relation to its annual disbursements on various items of expense, and in relation to the benefits to be derived from such an institution as has been sketched.

The adequate endowment at one cost of a great educational institution to teach meat packing in all its branches, of a re-search organization for the upbuilding of the whole industry, and of practical in-

*Figures from World Almanac. 1921.

struction and continuation studies for the improvement and broadening of the per-sonnel would be an excellent investment even if it were viewed solely as perpetual good-will advertising.

How Each Packer Could Help.

Under this plan of bringing forth such an institution full-born, one packer might be willing to donate the building, another might be willing to endow a research foundation in chemistry; another, in merchandising; another, in packing house practice, and so on.

Some packer might be willing to give a large outright endowment for providing instruction to young men intending to enter the industry. And perhaps another might be willing to endow two or three courses of practical instruction for those already in the industry.

All of this might be done in the form of acquiring contributing or founders' membership in the institute, but there should be as little personalization of the gifts as possible.

Financial support for one phase of this plan is directly justified by the tangible monetary benefit to be derived from eliminating duplication of commonplace re-search work; from carrying research work



M. D. HARDING, Vice Chairman Committee on Practical Research.

further than one company alone could afford to carry it; from developing scientific data and keeping such data in advance of the production plans of any one company.
Moreover, this does not destroy individual
initiative. Competition in making use of

the knowledge developed would distinguish future, and in the remote future also. the progress of one company from that of another. There would still be original re-

Educational Work Aids Profits.

On the intangible side, it can be argued that the educational branches of the sort of institute proposed would reduce personnel turnover, draw better human material into the industry, cut down the time required the industry, cut down the time required to train executives, increase efficiency, reduce mistakes, create good will, further improve the standing of the industry, open added opportunities to workers, enhance loyalty, augment the interest of the worker in his work, etc. All of these things, though intangible, mean a monetary benefit

To any of us who have been generous in our philanthropies, it might be argued that our own industry has first claim on our constructive giving.

Another way to make a start is to continue the start we already have made in inaugurating research work by institute committees and institute employes. But the difficulty here is that the Institute's funds are pretty definitely limited to the accomplishment of its present program. Perhaps the contributing and founders' membership plan might be practicable in this connection.

For example, one packer might endown institute "fellowship" in waste-elimina-on. The man holding this "fellowship" tion. The man holding this "fellowship" might be one technically qualified on the subject of local deliveries. If so, he could well devote his whole time to studying and reporting on

1. Methods of Reducing Costs of Local Deliveries

Methods of Reducing Preventable Shipping and Handling Losses on Live-

3. Methods of Reducing Expense by Standardizing Containers.

Any man who could handle the first subject could readily handle the second and probably the third, after a time spent in investigating them.

Endowing Special Research.

Such a research "fellowship" should effect considerable savings for members. The committee members can not devote their full time to this work, and yet the work deserves and would compensate a man's full time. The Institute, of course, isn't rich enough to supply a man for each two technical committees.

Another packer might endow an institute research fellowship in one phase of chemistry; with a provision that the fellow undertake to compile existing data on this. subject as a handbook for superintendents and operating departmental heads.

All of these fellows would do their work, not at some college, but at the institute and in the packing houses, under the direction of the appropriate committee.

We already have made a beginning at research into retail merchandising. We also have developed considerable effectiveness at statistical research, have developed and are constantly improving our statistical compilations. In addition, the Committee on Nutrition has proposed research, under outside auspices, into the value of meat, and a full-time scientist has been added to the institute staff. The Committee on Cost Accounting also does real research work, as do some of the other committees

The Ultimate Institute

few new "fellowships," endowed by individuals and added to what we already have done and are doing, would be another step toward the ultimate institute. The institute's usefulness has increased more rapidly and more enormously than any one could have anticipated. It has proved it-self and justified the conviction that it has a place, and fills a need in the industry.

While this is a cause of satisfaction, perhaps it also should be an incentive to progress just as rapid in the immediate

To insure such progress, we must have a definite working plan for guidance and stimulus, whether it be decided to attempt to accomplish the plan piecemeal or as a whole where the statement of the plan piecemeal or as a statement of the plan piecement of the plan piecement or as a statement of the plan piecement of the plan piecement or as a statement of the plan piecement of the pl whole. Moreover, someone must be made responsible for developing a practical plan and for advancing its accomplishment. No municipality ever worked out a decent city-plan by merely agreeing that one was

needed; and when the plan was finally worked out, the mere adoption of it never meant its accomplishment. The usual course is to appoint a plan commission to develop the details of the plan and then to hasten its accomplishment accordingly. I hope I shall have the sanction of the membership in my appointment of an Institute Plan Commission as indicated under a later chapter heading.

VI— Precedents from Other Industries

In my prefatory memorandum I mentioned the fact that just about the time we were holding our annual meeting, announcement was published of Germany's plans for expanding, under the auspices of individual industries, technical education and industrial research. Let me refer to this incident at slightly greater length by quoting the following excerpt from an article by Robert Crozier Long in the Saturday Evening Post of August 31, 1921:

"The duty of creating technical schools and research institutions has been imposed



ARTHUR LOWENSTEIN. Chairman Committee on Scientific Research.

on the rich industries. * * * Although Germany has already a model system of industrial research institutions, of which the Mulheim Coal Institute and the Karlsruhe Textile Institute are the most fa-mous, no less than fourteen commissions mous, no less than fourteen commissions are sitting in different industrial centers to create new institutes or improve those already in existence. The famous paper institute of Kothen, in Anhalt, will be doubled in size and newly housed; a new sugar institute will be opened at Magdeburg, the center of this trade; part of the unreasonable profits made by leather dealers after state leather central was abold. ers after state leather control was abolished in 1919 has been compulsorily diand industrial-research institute; and industrial-research institutions in other standard branches are to be opened at Cologne, Mulheim, Dresden, Augsburg and Berlin." verted to foundation of a leather institute

It may be assumed safely that Germany hard pressed for cash, has been spending money on expansion of industrial activities only when those activities have proved their value and their importance; that she would not consider investing in a large program of industrial research and technical education unless such a policy was sure to pay "dividends."

How Other Industries Improve.

Furthermore, evidential examples are available much nearer home. Consider, for an instance, the method of co-operation in effect between the Portland Cement Association and Lewis Institute of Chicago. The following official description of this co-operation was furnished at the request of our Bureau of Public Relations:

"The work of the Structural Materials Research Laboratory is being carried out through the co-operation of Lewis Institute and the Portland Cement Association, Chicago. The institute is an endowed school with an engineering department. The aswith an engineering department. The association is an organization of cement manufacturers in the United States, Canada, Cuba and Mexico, to improve and extend the uses of concrete. This research work has been under way since Sept. 1, 1914. The policy of the laboratory is vested in an advisory committee of four members. an advisory committee of four members consisting of representatives of the insticonsisting of representatives of the insti-tute and the association. The work of the laboratory consists of experimental re-searches in the properties of concrete and concrete materials. Investigations are be-ing carried out by a staff of about 35 engineers, chemists and assistants who give their entire time to this work. The work of the laboratory occupies about work of the laboratory occupies about 15,000 square feet of floor space. Some of the principal items of equipment are listed

"About 40,000 tests per year are now being made on concrete and concrete ma-terials. An idea of the scope of this work may be obtained from the fact that during the past year we used in our research work about 2,000 sacks of cement and 15 carloads of aggregates. Samples of sand, pebbles, crushed rock, water, etc., are sent to the laboratory from all parts of North America for test and recommendations as to their fitness for use in concrete.

'The results of these investigations are "The results of these investigations are published in the form of papers before engineering and technical societies and in circulars and bulletins issued by the laboratory. Thus far eight technical bulletins and a large number of miscellaneous papers have been published.

Some of the Topics Studied.

'The following are some of the topics which have recently been studied:

Effect of Size and Grading of Aggregate on the Strength and Other Properties of Concrete. Effect of Consistency of Concrete.

Concrete-making Properties of Differ-ent Types of Fine and Coarse Aggregates.

Effect of Curing Condition on Strength and Wear of Concrete.

Effect of Hydrated Lime and Other Powdered Admixtures in Concrete.

Effect of Organic Impurities. Effect of Tannic Acid. Effect of Storage of Cement.

Effect of Age on the Strength of Concrete.

Effect of Impure Waters When Used

in Mixing Concrete. Effect of Alkali on Concrete.

Relation of Modulus of Rupture to Compressive Strength of Concrete. Wear Tests of Concrete as Affected by:

Quantity of Cement. Grading of Aggregate. Size of Aggregate.

Type of Aggregate.

Curing Condition of Concrete.

Age of Concrete.

Preserving Admixtures "The equipment of the laboratory in-

Stop or Go On?

Meat Packers are no longer regarded merely as large-scale butchers, but as efficient industrialists performing an intricate service in a scientific way. The little cross-roads slaughterhouse, dumping its by-products through a hole in the floor to the hogs beneath, has become the biggest industry in America, serving the nation, serving the world, and serving them well. Through the Institute this service has not only been improved but made understood.

The businesses with which we are identified are in better status now. Shall they not make further progress? Shall we not hand them down to our sons with a maximum of service, of merit and of prestige? Or shall we stop where we are?—Thomas E. Wilson.

cludes the following among the major items:

Three hundred thousand pound universal testing machine.

Two two hundred thousand pound universal-testing machines.

Forty thousand pound universal testing machine.

Torsion testing machine.
Talbot-Jones rattler for wear tests of concrete.

Two concrete mixers.

Complete cement testing equipment.

Tile testing apparatus for internal

pressure tests of pipe and tile. Deval abrasion machine for rock tests. Ro-Tap sieve shaker.

Air analyzer for cement tests. Ball mill.

Pebble mill.
Rock crushers.
Rolls for crushing.
Rotary screen for aggregates.

Jig table.

High-pressure steam apparatus.

Moist-room for specimen storage.

Concrete tanks for specimen storage.

Complete chemical laboratory.

"The chemical laboratory is a valuable adjunct to the physical tests which form the bulk of our research work.

"In much of our experimental work we

"In much of our experimental work we co-operate with various governmental bureaus and committees of many of the national engineering societies and trade organizations.

"The work of the laboratory is directed solely toward securing and distributing information which will be of value to the user of concrete. Very little of our work has any bearing on the mill problems met in the manufacture of cement. This work has proven to be an excellent example of the good results that can be obtained through the co-operation of educational institutions and manufacturing industries."

Research Will Increase Efficiency.

The foregoing statement indicates some of the kind of work which the research branch of the institute might undertake. All of the tests described above give the manufacturer an index to the correctness of his methods and the effectiveness of his processes, in addition to developing information for the users of his product. As a representative of a member company of the Portland Cement Association phrases it: "This arrangement with the Lewis Institute provides a good opportunity to get just the kind of tests that industry seems to demand."

In the matter of commercial research work, reference also might be made to the Leather Research Laboratory of the Tanners' Council. Perhaps many of you are familiar with its work.

Or, going away from home again, reference may be made to the tendency of industries in the United Kingdom to prosecute research work under joint auspices. My impression, formed somewhat by a very interesting article by Sidney Brooks in one of the British quarterlies, is that this development in the United Kingdom has reached a point in advance of communal industrial research here and very much behind such research in Germany. It is easier, of course, to foster this sort of thing in Germany because of the relations between government and industry there.

Eliminating Duplication Saves.

It is not necessary to cite further examples bearing on that phase of the plan which proposes research activities of a pretentious sort. From the financial point of view, indeed, it was hardly necessary to cite any examples, for the reader may find a convincing and affirmative answer by simply asking his chemist, if he employs



WALTER H. SAUNDERS, Chairman Committee on Charter.

one, or his superintendent, whether duplication of expense could not be avoided or a saving effected, without harm, by having the institute conduct certain tests and researches now being carried on, in some cases, by individual companies, and in other cases not being carried on at all.

It is worth while, perhaps, to note a few examples which indicate to some degree the possibilities inherent in that part of the plan proposing that the institute should provide technical education for young men intending to adopt meat packing as a life work, and continuation and extension courses for persons already engaged in the industry. It was suggested, you will recall, that instruction and work might be co-ordinated even in the case of those young men intending later to enter the packing-house field.

Need a Feeder of Trained Men.

The primary thought behind this item of the plan was that the industry should have an educational "feeder" of trained men. There is ample precedent for this suggestion. Consider the schools of mining which feed especially trained men into the various branches of the mining industry. Colleges of this sort are too numerous to list. The Colorado School of Mines is an example.

is an example.

The textile industry also benefits from two technical institutions preparing young men for work in that field.

Even the baking industry—and I do not

mean to refer to it slightingly—has a technical institution where scientific baking is taught to bakers from all parts of the country and where industrial research is carried on. In fact, the bakers' national association purchased outright a technical laboratory and institute which had been used for other purposes.

Various industries, it seems, have their educational feeders, but the packing industry, which is the largest of them all, has none.

In connection with continuation and extension courses for men already engaged in the industry, I should like to refer, without citation, to experiments made by individual packing companies along this line and to the growth of the extension departments of American universities. Perhaps I might refer also to the Institute of Certificated Grocers, a British organization which offers technical instruction covering continuation studies, a school, a commercial college, a university college and a post-graduate department. Instruction is available for men engaged in the grocery trade or intending to enter it.

A full outline of these courses has been obtained by the active vice-president of our institute and is available for examination in the institute offices. The Institute of Certificated Grocers is officered by able and prominent Englishmen. How much better it would be, for producers, packers and consumers, if the newcomer in the packing industry—the man starting a new packing establishment—were always versed in the arts, sciences and practices of meat packing.

Instruction and Practical Work,

In connection with my proposal that the institute become a research organization and an educational institution, I suggested that it might be possible to effect some sort of co-ordination between instruction and industry while the prospective employe was still in college. This sort of co-ordination has been emphasized within the last few months by the New York University, with due obeisance to the University of Cincinnati.

Professor Herman Schneider, dean of the College of Engineering and Commerce, University of Cincinnati, has invited the Bureau of Public Relations to make a first hand investigation of the co-operation between education and industry which has been effected there. Dean Schneider also has furnished to the institute, at its request, certain material descriptive of the co-operative work at the University of Cincinnati. Included in this material is a summary of the development of the co-operative work. It reads in part as follows:

"The College of Engineering of the University of Cincinnati originated in a professorship of civil engineering, which was (Continued on page 49.)

The Only Danger

When things are at the bottom there is more necessity for sound planning than ever before. We have an opportunity to build solidly from the bottom upward. The only danger in such a time is not that we may commit ourselves to a plan which seems too large when viewed from our present situation, but that we may commit ourselves to a plan which will prove too small when applied to the future necessities and possibilities of our industry.

This latter danger, in my opinion, is the only argument that can be urged against the Institute's attempting now to chart its future; and it is difficult to believe that anyone would permit the constricted possibilities of the present to limit his view of the Institute's future; that is, of the future of his industry.—Thomas E. Wilson.

Aims and Plans of Packer Law Enforcement

Commenting upon the Supreme Court decision upholding the constitutionality of the Packers and Stockyards Act of 1921, Secretary of Agriculture Wallace repeats his former declaration that the Department of Agriculture did not intend to act arbitrarily in enforcing the law, and says packers and stockyards have given satisfactory co-operation.

He states further that the purpose of the law and of the Department was not so much to detect abuses as to undertake constructive study of the meat industry from the range to the table. At the present time, the Secretary says, an organization is being built up carefully to administer the act and co-operate with all other agencies.

The attitude of the Secretary was summed up by him in this way: "We shall not assume that men are rascals unless they have been proved to be such. On the contrary, we take it for granted that the various people who are under the supervision of this law will be glad to co-operate with us in eliminating any abuses or unfair practices which, intentionally or otherwise, may have grown up as this great industry has developed."

Referring to what already has been done, Secretary Wallace points out that there are supervisors working now in 17 markets, and that the country ultimately will be divided into four divisions, with a general supervisor for each division, and under him local supervisors at the various packing and marketing centers. Already the Department has been able to improve some of the market methods in the interest of greater efficiency.

Secretary Wallace's statement is as follows:

"The recent decision of the Supreme Court seems to clear away all obstacles to the full enforcement of the Packers and Stockyards Act. We have had satisfactory co-operation from the packers and from the owners of stockyards. Now that the Supreme Court has held that commission merchants, traders and other people who operate in the yards come under the act, I hope we may have the same sort of co-paration from these marketing agencies.

operation from these marketing agencies. "The decision handed down by Chief Justice Tatt is gratifying, both in that it affirms the constitutionality of the act and in that it makes plain the purposes of the act. As stated by the Chief Justice, the object to be secured by the act is the free and unburdened flow of livestock from the ranges and farms . . . through the great stockyards and slaughtering centers . . . and thence in the form of meat products to the consuming centers.'

Aim of Act Constructive

"That was what Congress had in mind, as developed in hearings before the committees before the act was passed. The purpose was not alone to remove flagrant abuses but to permit a constructive study of the meat industry from the ranges and farms to the table of the consumer. The magnitude of this industry is indicated by the fact that at 69 stockyards under our supervision more than 80,000,000 cattle, sheep and swine were received during the year 1921.

The packers are forbidden to engage in unfair, discriminatory or deceptive practices, or to control prices or establish a monopoly in business. We are given authority to do everything which seems to be necessary to make sure that the packers live up to the law. We have the right

to examine their books, to call in witnesses, and to make investigations of all kinds

"Commission merchants, traders, stockyards companies and all other market agencies are forbidden from charging unreasonable rates and from engaging in unjust, unreasonable, discriminatory or deceptive practices. Over them also we have large authority. All of these market agencies must register with the Secretary of Agriculture, and their rates, charges and practices must be approved. Severe penalties are imposed for non-compliance with the orders of the administrative agency, but all parties concerned have the right to appeal to the courts.

Department Going Carefully.

"Because of the great importance of the act and of the very large responsibilities imposed upon us, we have been proceeding carefully in building up our organization for its enforcement. This organization iscalled the Packers and Stockyards Administration of the Department of Agriculture. We now have supervisors in 17 markets, namely, Atlanta, Ga., Buffalo, N. Y., Chicago, Ill., Cincinnati, O., Denver, Colo., Detroit, Mich., El Paso, Tex., Fort Worth, Tex., Indianapolis, Ind., Kansas City, Mo., National Stock Yards, Ill., New York City, N. Y., Omaha, Nebr., Pittsburgh, Pa., San Francisco, Cal., Sioux City, Ia., and South St. Paul, Minn.

"The country is being divided into four divisions, and when the organization is complete there will be one general supervisor for each division, and under him local supervisors at the various larger packing and marketing centers. Stockyards which come under the act and which are not large enough to justify the placing of a resident supervisor will be looked after by the district supervisor or the supervisor at one of the nearby larger markets.

(Continued on page 46.)

Shippers at Mercy of Foreign Shipowners

One of the features of the convention of the United States Chamber of Commerce at Washington, D. C., this week was the charge made by packinghouse industry representatives of a plot by foreign shipping interests to get ocean shippers at their mercy. THE NATIONAL PROVISIONER had already called attention to this plan, and the Washington meeting served to advertise it still further.

Charges that foreign ship owners had launched a scheme to invalidate the provisions of the American Bill of Lading Law and the Harter Act, under which American importers and exporters for years have been accorded protection from irregular practices in the carriage of their goods by sea, were made at the convention on May 16.

In addresses made before the merchant marine group of the chamber it was charged that the foreign steamship owners, being faced with the probability that the British parliament would enact a uniform bill of lading law, similar to the American law and the laws on the statute books of most of the British dominions, conceived the idea that they would attempt to sidestep the legislation and at the same time relieve themselves of responsibilities placed upon them by American law, which has been used as a model by various countries for bill of lading legislation.

To this end, it was asserted by speakers, including Charles E. Herrick and C. B. Heinemann, respectively chairman of the traffic committee and vice-president of the Institute of American Meat Packers, a set of rules known as the "Hague rules" was devised. Denial was made by the speakers that the rules would voluntarily bring about "uniform bills of lading." On the contrary, it was charged that their adoption would bring about "uniform chaos" in the foreign trade of the United States, and would place the shippers of the country at the mercy of steamship lines, particularly foreign lines.

Attention was called to the fact that although the U. S. Shipping Board had not given its approval to the so-called "rules," steamship interests recently had a bill introduced in the United States Congress providing for their adoption. The bill is so drafted, the speakers asserted, as to virtually wipe the Harter act from the statute books and set up in its place the Hague rules, drafted by international lawyers and representatives of foreign steamship interests. The bill which the steamship interests managed to have introduced, it also was charged, would in effect set aside an important portion of a recent Interstate Commerce Commission decision prescribing an American form of through export bill of lading.

WILSON ELECTED VICE-PRESIDENT.

The annual election of officers of the Chamber of Commerce of the United States on Thursday resulted in the selection of Thomas E. Wilson, president of the Institute of American Meat Packers, as vice-president of the Chamber for the northern states. Mr. Wilson has been a director of the Chamber for several years past.

Officers elected were:

President, Julius H. Barnes, Duluth, Minn.; vice-president for the eastern states, A. C. Bedford, New York; for the northern states, Thomas E. Wilson, Chicago; for the southern states, Harry Black, Galveston, Tex.; for the western states, Thomas B. Stearns, Denver, Colo. Honorary vice-presidents: William Butterworth, Moline, Ill.; L. S. Gillette, Minneapolis; Charles Nagel, St. Louis, Mo.; and A. B. Farquahar, York, Pa.

Directors: Alvin T. Simonds, Fitchburg, Mass.; Ernest T. Trigg, Philadelphia; John M. Crawford, Parkersburg, W. Va.; M. J. Sanders, New Orleans, La.; John W. Shartell, Cincinnati, O.; Edwin C. Gibbs, Oklahoma City; William J. Dean, St. Paul; Clyde C. Dawson, Denver; O. M. Clark, Portland, Ore.; Arthur S. Bent, Los Angeles; Fred P. Mann, Devils Lake, N. D.; George B. Blow, La Salle, Ill.; Felix M. McWhirter, Indianapolis; Henry H. Morse, Abingdon, Mass.; James S. Kemper, Chicago; Charles S. Keith, Kansas City, Mo

Packers' Traffic Problems

Items under this head cover matters of general and particular interest to the ment and silled industries in connection with traffic and transportation problems, rate hearings and decisions, etc. Further information on these subjects may be obtained upon application to the institute of American Meat Packers, 22 West Monroe St., Chicago, Ill.

PROTEST SOUTH STOCK RAIL RATE.

New livestock freight rates in Southeastern territory, i. e., all territory south of the Ohio and east of the Mississippi river, have been the subject of a protest filed with the Interstate Commerce Commission asking for suspension, on the part of the Southeastern Livestock Association and supported by other organizations, including the Institute of American Meat Packers, the American Farm Bureau Fedchange. The new rates constitute an increase of 87 per cent over the present rates and would mean \$1,000,000 more spent on livestock shipped into Louisville, Ky., alone. The case originated, according to W. S. Bell, president of the Louisville Livestock Exchange, when the East Tennessee Packing Co. protested that northbound cattle rates were higher than those southbound.

FIGHT HIGHER LIVESTOCK RATE.

Seeking to set aside livestock freight rates in Nebraska on the ground that they are discriminatory in favor of St. Joseph and Kansas City, Mo., representatives of the Omaha stockyards have begun hearings before Examiner Disque of the Interstate Commerce Commission. Mahoney of Chicago, assistant general freight agent for the C., B. & Q. R. R. urged that due to an increase to his road granted by the state legislature the Burlington was handicapped by competition of the Union Pacific and Chicago & Northwestern and suggested advances in rates for all lines so they would be on a parity. The hearing is the outgrowth of a decision by the commission several years ago in which rates on livestock from Nebraska points to St. Joseph and Kansas City, now declared by Omaha stock yards representatives to be discriminatory, were established. The object of the present hearing is to have the present rates set aside and others established which will put the local market on an equal basis with those in the Missouri cities.

INTERSTATE COMMERCE CASES.

Complaints made recently to the Interstate Commerce Commission and decisions rendered by the commission in cases of interest to meat packers are reported as follows:

Rates on Livestock in Texas.—In a tentative report on No. 13002, Kansas City Livestock Exchange vs. Abilene & Southern, et al., Examiner John A. McQuillan has recommended a holding that the rates on livestock, from Kansas City to Texaspoints, are unreasonable and unduly prejudicial. He said the Commission should find that rates on beef cattle, stock cattle, calves, stocker calves, hogs, sheep and goats, from Kansas City to Texas points, are unreasonable and unduly prejudicial as to the extent that they exceed the rates that will result from the application of the scale now applicable over defendants' lines, between Texas points and Wichita, Oklahoma City and other points, and which is now published in F. A. Leland's tariff, I. C. C. No. 1497.

Southern Stock Cattle Rate Hearing.—To amend S. W. L. tariff 76-E, to provide that mileage schedule of rates named therein

on stock cattle and stocker calves, carloads! will no! apply to Arkansas City, Wichita and Wichita Union Stock Yards, Kansas, from points in Southwestern ter-(Continued on page 36.)

PERISHABLE FREIGHT DOCKET.

The subjects listed below will be given consideration by the National Perishable Freight Committee at a hearing to be held at Committee headquarters, Room 1404 Pontiac Building, 542 South Dearborn street, Chicago, on Tuesday, June 6, 1922, commencing at 10 a.m.

Shippers desirous of presenting their views on any of the subjects may appear before the Committee, or communicate with the chairman prior to the date mentioned.

Subject No. †579, handling L. C. L. perishable in box cars; †584, protective service on pineapples, carloads; *585, preservatives with shipments of cheese; *587, Ohio groupings: †589.shippers' instructions —handling shipments under non-refrigera-tion; †590, allowance for decking on traffic moving under through stated refrig-eration charges; *591, shippers' instruc-tions on traffic moving under Rule No. 240; †592, reicing cars at hold points and destination; †594, charges for "Carriers' Protective Service Against Cold" on shipments of evaporated milk; †595, Rule 630 to be limited to iced cars only; *597, computing deficit on shipments moving in individual cars; *602, handling shipments under Rule 225 with bunkers or tanks ¾ full; †603, basis for refrigeration charges to and from points on the Stockton Termito and from points on the Stockbon and & Eastern Ry.; †604, California groupings; †*605, cars delayed at loading station on shipments moving under "Carriers' Protective Protective Service Against Cold"; †606, application of stated replenishing charge; †606. †613, heater protective service against cold at points on the Cincinnati, Indianapolis & Western R. C. Co.; †615, equalization of heater charges from Colorado to Southwest vs. rates via Kansas and Mis-souri Junctions; †616, cost of ice at points on the Central Railroad of New Jersey; †619, icing charges on bananas, carloads, at Jackson, Tenn.; †622, icing charge on cars held account bad order, etc. (Cars moving under cost of ice basis, Section 4); **e29, handling individual cars to more than one destination; †630, California groupings; *633, carriers' protective service against cold in Eastern territory; *634, ice against cold in Eastern territory; *634, allowance to shippers for furnishing ice to shipments delayed at loading station; *636, charge for ice at St. Louis, Mo., and East St. Louis, Ill.; *637, change from standard refrigeration to ventilation on shipments moving under Rule No. 240; *638, shippers' instructions on shipments moving on cost of ice basis under Sec. moving on cost of ice basis under Section 4.

*Docketed by shipper. †Docketed by carrier.

CANADA EXPORTING MORE MEAT.

Meat exports from the port of Montreal are on the increase, according to recent reports. Some American packers are now dividing their export trade equally between the ports of New York and Montreal.

A representative of one firm said he would be shipping 1,000 tons of chilled meats a week from Montreal before midsummer. He explained that Montreal and New York were equally well situated for his purposes with regard to rail facilities, but Montreal received the preference because weather conditions on the Northern Atlantic are more favorable to the shipment of chilled meat.

LIVESTOCK BREEDING IMPROVES.

The Committee on Improved Livestock Breeding of the Institute of American Meat Packers has made its first report, showing the progress it has achieved since its appointment and the great interest it has stimulated among meat producers to raise better livestock. This report, which is a testimonial to the wisdom in appointing such an important committee, has been made through its secretary, Edward N. Wentworth, as follows:

The first season's work of the committee has shown gratifying results in the interest aroused among producers. The principal activity of the committee has been the awarding of cups for the best bred carloads of cattle, sheep and swine at certain representative stock shows, and the awarding of medals to boys and girls showing calves, pigs and lambs under the generally accepted junior club rules.

The awards were as follows: At the Southeastern Fair, Atlanta, Ga., three cups for hogs; at the Nashville Fat Stock Show, Nashville, Tenn., three cups for Shorthorn, Hereford and Aberdeen-Angus cattle; at the International Stock Show, Chicago, Shorthorn, Hereford, and Aberdeen-Angus cups were awarded, as well as cups in the Berkshire, Duroc-Jersey, Poland-China, Chester White, Hampshire and Tamworth breeds and in the Shropshire, Southdown, Hampshire and Rambouillet breeds of sheep.

At the National Western Stock Show, Denver, Colo., cups were awarded in the Shorthorn, Hereford and Aberdeen-Angus classes, in the Poland-China, Berkshire, Duroc-Jersey and Hampshire classes, and in the Shropshire, Hampshire, Southdown Oxford and Rambouillet classes. At the Southwestern Fat Stock Show at Fort Worth, Tex., Hereford and Aberdeen-Angus cups were awarded as well as in the Hampshire, Poland-China, and Duroc-Jersey hog classes. The only sheep cup awarded at this show was in the Rambouillet breed.

In the boys' and girls' club contests,

In the boys' and girls' club contests, silver medals were awarded only at the International and at the Southwestern Fat Stock Show, nine being given at the International, including three for each class of livestock, and four at Fort Worth, two being for cattle and two for hogs.

Owing to lack of competition, the following silver cups were not awarded, although the offers were made in the premium lists of the shows: At Atlanta, the Berkshire cup; at the International, the Oxford and Cotswold cups; at Denver, the Cotswold cup; and at Fort Worth, the Shorthorn, the Oxford, the Hampshire, the Shropshire

and the Cotswold cups.

For the coming season, 1922-1923, three cattle and four hog and sheep cups will be offered at Atlanta; three cattle cups at Nashville; three cattle and twelve hog and sheep cups at the International; three cattle and ten hog and sheep cups at Denver; three cattle and four hog cups at the American Royal, Kansas City; two cattle cups at the Southwestern American at Oklahoma City; three cattle and eight hog and sheep cups at Fort Worth; and three cattle cups at the Pacific International at Portland, Ore. Medals will also be offered in the boys' and girls' club work at the principal stock shows.

In awarding these cups and medals it has been the effort of the Committee on Improved Livestock Breeding to cover the entire country, and although the Portland show was not included the past year, cups will be awarded there this fall.

While the foregoing has constituted the principal activity of the committee, it has by no means been the only work, for much has been done in the way of contributions to the agricultural and market press, and in addresses delivered by the secretary of the committee, Edward H. Wentworth, at different points.

A LIMITED EDITION ONLY

ONLY a limited edition of the "PACKERS' ENCY-CLOPEDIA" will be printed. The number was determined by a careful analysis of the field, and by the many advance orders received.

A revised edition will probably not be published again for some years, for it has cost many thousands of dollars to collect the data and information which, if the book should be published every year, would make the cost prohibitive.

Judging from the inquiries received, both domestic and foreign, there will only be a limited supply after orders now on file are filled, and we therefore advise placing order as early as possible, to insure receiving your copy.

No book has ever been published containing the wealth of data, formulas, operating instructions, statistics, and useful packinghouse information found in the PACKERS' ENCYCLOPEDIA.

The commercial section of THE PACKERS' ENCYCLOPEDIA will be a trade stimulator to the allied industries, as it contains up-to-date lists of packinghouses, wholesale sausage manufacturers, wholesale meat dealers, renderers, brokers, oil refiners, livestock order buyers, etc.

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THE NATIONAL PROVISIONER

OLD COLONY BLDG.

CHICAGO, ILL.

TRADE GLEANINGS

The slaughter house of Dorsett & Holt, Spencer, N. C., was recently burned.

The Pacific Meat Co. is planning to erect an abattoir at Point Grey, B. C.

The T. L. Packing Co., Knoxville, Tenn., has increased its capital from \$50,000 to \$150,000.

H. C. Boehm & Sons have opened a sausage factory at 1341 Main street, Marinette, Wis.

The Sumter Farm & Stock Co., Geiger, Ala., is contemplating installing a cottonseed oil mill.

The California Rendering Co., Los Angeles, Cal., was recently incorporated with a capital of \$100,000.

The Home Made Sausage Co., 4500 West 22nd street, Chicago, will shortly build an addition to their plant.

The Farmers' Union Warehouse Co., Anniston. Ala., is reported to be about to install a cottonseed oil mill.

The Sassafras oil plant, Junction City, Ky., is reported to be about to be taken over by Charles C. Sparhawk of New York,

A public abattoir for Lachine, near Montreal, Que., has been urged upon the city council by a delegation of the local meat retailers.

The Carstens Meat Co., Spokane, Wash., recently sustained a loss of about \$10,000 to their plant through fire, the damage being fully covered by insurance.

The White-Peacock Packing Co., Salisbury N. C., has been incorporated by H. Z. White and S. C. Peacock, with a capital of \$35,000 and will erect a packing plant and abattoir.

Roberts & Oake have acquired a site opposite their main plant at 45th street and Racine avenue, Chicago, and after taking possession about August 1, 1922, are planning to build an extensive addition to their plant equipment.

The Rath Packing Co., Waterloo, Ia., is going to spend about \$100,000 on improvements, including a new power plant, a

shipping and cold storage department, inedible and edible products department, concrete hog unloading chutes, new hog pens and other additions.

Although the plant of the newly organized Interstate Packing & Ice Company at Norfolk, Va., will not be in operation until September, the company has started a campaign to encourage livestock producers in some 25 counties of Virginia and North Carolina to produce hogs and cattle that can be slaughtered at that

SWIFT INTERNATIONAL FINANCES.

The annual financial report of the Compania Swift Internacional (Swift International), the Swift organization owning and operating the company's foreign plants, submitted to the stockholders' meeting this week shows an operating loss of \$6,706,199 for the year ending Dec. 31, 1922. In his report President Edward F. Swift says that inventory losses have now been adjusted and the company is on a profitable basis at this time. At its meeting the board of directors announced a reduction in dividend from \$2.40 per share, paid last year, to \$1.80, stock being of \$15 par value. The dividend declared was a semi-annual one of 90 cents.

The income account for the year and balance sheet as of Dec. 31 last, with comparisons, are as follows:

1921. 1920. \$23 156 278 \$22 912 383

Income Account:

Surplus Jan. 1	
To reserve account 82,862	158,993
Fees 9,200	9,200
Surplus adjusted 23,064,216	22,744,190
Dividends paid 3,731,040	3,731,040
Net loss for year 6,706,199	*4.143.128
Surplus Dec. 31 12,626,199	23,156,278
*Net earnings.	
Balance Sheet—Assets: 1921.	1920
Stock investments, book value.\$43,849,790	\$53,421,098
Due from assessed common 19,911,431	
Cash	
Totals\$63,762,507	\$75,863,506
Liabilities:	
Capital stock\$22,500,000	
Due to assessed common 27,973,909	29,628,469
General reserve 661,620	578,748
Surplus 12,626,977	23, 156, 278

Totals\$63,762,507 \$75,863,506

TRADE COMMISSION BUSY AGAIN.

Announcement was made this week in Washington that the Federal Trade Commission had issued an order directing Armour & Company to dispose of its interests in the E. H. Stanton Company of Spokane, Wash., which plant and business it acquired some years ago. Violation of the Clayton anti-trust act is alleged.

Replying to the announcement, the follewing statement from Armour & Company appeared in the daily newspapers:

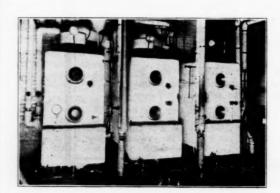
"Armour & Company did not violate any law in purchasing the E. H. Stanton company plant at Spokane, Wash. It acquired this property in the summer of 1917 for the purpose of having a packing plant in the West to supply the needs of its business in that portion of the country, it being practically impossible to ship fresh meats to the Pacific coast from its more eastern plants.

"The case is merely one of many filed by the Federal Trade Commission against those engaged in the meat packing business about three years ago and over two years after the Federal Trade Commission knew that Armour & Company had acquired this property. There was no violation of law in the acquisition and this will, we confidently feel, be established in the courts.

HOLDS FUTURES LAW INVALID.

The United States Supreme Court in a recent decision has held a part of the grain trading act, the so-called Capper-Tincher law, invalid, and has decided in favor of those individual members of the Chicago Board of Trade who had attacked the constitutionality of certain features of the act. The reasoning on which the decision was based was not that futures trading itself was illegal, but that the method of the law in taxing futures trading was contrary to the Constitution.

The principal features of the act were those permitting trading in futures only in designated "contract markets." under the supervision of the secretary of agriculture, and imposing a tax, intended to be prohibitive, of 20 cents a bushel on any futures trades not made in such a market or in accordance with the provisions of the act.



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A Livestock Futures Market

A report that a futures market for meat and cattle is to be established at Buenos Aires, Argentina, brings up a question that has been considered in the United States. The promoters of the Argentine market believe that such a market would result in better organization of the livestock business, prevent violent fluctuations and improve conditions generally. What would be the chances for permanent success in the United States of such a plan?

The fact is that there has been some trading in cattle, hogs and sheep for future delivery. in the United States for years. But such trading has been solely on a contract basis between individuals. Packers at times have contracted for animals in the feed lot. Speculators buy large numbers of Texas range cattle on contract for future delivery. Hog shippers in the corn belt contract hogs for future delivery at set prices. Omaha buyers will quote the Chicago market as a basis for future contracts, minus a fixed differential for shipping out of certain territory. But all this business has been outside exchange chan-

nels and has never been officially recorded.

For this to develop into extensive dealing in livestock futures regulated by the exchanges in the United States is not likely, because of the inherent difficulties. Some people argue that because this is done in pork products on the boards of trade it can be done in live animals. But the analogy is not a fair one.

Pork products and grain can be dealt in on boards of trade because they meet the first requirement of such an exchange They can be graded and standards are easily set. On the board of trade, with well known grades, in case one does not have the grade called for by the contract, it is allowable to substitute a different grade and pay a differential.

This cannot be done in the case of livestock. To begin with, livestock, and especially cattle, cannot be graded sufficiently close to meet exchange regulations. Any grading attempted would entail great expense, and would have to be conducted by a disinterested party. Again, livestock, unlike the products now dealt in on the futures market, is very perishable. Its market delivery condition might vary greatly and in such a way that could not be calculated. When the packer is buying livestock he does not want a different grade substituted, if by chance the seller is all out of the grade the packer wants. And this is even more so in the case of cattle than with hogs.

The chance of any such plan being worked out in the United States would be limited to the large markets only. And the difficulties in these markets as already mentioned are such that it is impossible to wax enthusiastic over the Argentine experiment so far as it is intended to be an ultimate solution of the livestock marketing problem through stabilizing receipts. But the outcome of the experiment in Argentina will be watched with interest.

Municipal Slaughterhouses

The question of municipal slaughterhouses is one that comes up every little while. Various places throughout the country are trying the municipal slaughterhouse experiment from time to time. But what everyone wants to know is: How do these experiments work out and what chances have they for bettering conditions?

Now the municipal slaughterhouse has been tried in other countries and the experience there is a good indication of what to expect here. In a recent issue THE NATIONAL PROVISIONER published accounts of slaughtering methods in Argentina and in Germany. And the situation as described by the writers of

the articles was not an encouraging one for the advocates of municipal slaughter-

There are two main difficulties in the way of the development of municipal slaughterhouses in the United States. One is the difficulty experienced in other countries already alluded to, namely, the trouble of proper conduct of slaughtering on scientific sanitation lines in municipal slaughterhouses.

For example, in Argentina the state of affairs at the public slaughterhouse in Buenos Aires is described as being very bad. The oldest methods of slaughtering and dressing are used, and the waste and theft are appalling.

In the German municipal slaughterhouses the methods are also very crude for killing, especially regarding the hogs, which are hooked behind the ears while still alive and dragged to the killing block.

In neither place is there such a thing as meat inspection under the general direction of a federal inspection agency. And this is one of the most important ways in which the municipal slaughterhouses, as operated in these other countries, fail to measure up to the requirements of a standard of living that is insisted upon by the American meat consuming public, and which the meat industry for its part is insisting upon being able to meet.

But it has been possible in some places in America to have municipal slaughterhouses run successfully. They have, in these cases, been properly conducted from a sanitary standpoint and been very efficient.

The more important objection to the municipal slaughterhouse in this country, however, is the economic one. The average retail butcher is simply not in a position to handle whole sides of beef. He will use three hindquarters to one forequarter in the smaller markets.

The municipal slaughterhouse would take him away from his market, and he has not the time to spare. For, to attend to the matter properly, he would have to go out and buy an animal and then transport it to the abattoir. After the animal was slaughtered and dressed, the retailer would have to go and get the dressed carcass. And all this is time consuming and uneconomical.

In this country, as a general rule, the municipal slaughterhouse has not proved itself a success in modern times. It is subject to the faults of the principle of municipal slaughterhouses everywhere. While in theory it has much to commend it, in practice it has in most cases proved woefully inefficient and a hampering influence in the proper development of the meat industry.

PRACTICAL POINTS FOR THE TRADE

GREEN BOLOGNA IN BEEF BUNGS.

A problem that has troubled packers in various parts of the country has been that of having big-gut bologna turning green directly inside of the casing for about one-half inch. The way to correct this matter has been considered by some of the best known sausage makers and superintendents in the country. An analysis of all the replies in response to inquiries shows the old saying to be true that "no man knows it all."

In a report on the problem the Packers' Service Bureau gives the experience of a great many packers, which makes very interesting reading. Some of the suggestions are given here:

A West Virginia packer writes: "Our only solution has been 'be sure the meat is thoroughly cured and properly cooked."

Another packer writes: "The foreman

Another packer writes: "The foreman of our sausage department suggests that possibly the casings had not been thoroughly cleaned; perhaps they were left too long and the fat had spoiled, or air pockets may have formed when stuffing."

Here is the experience of a large Middle West packer: "It seems to me the trimmings are not properly cured or else the water for cooking is not kept at the Fahrenheit it should be. We allow our regular bologna in beef middles, medium to large sizes from 1½ to 1½ hours to be cooked. Our minced ham in guts or gut bologna, 2¼ to 2½ hours to be cooked. I have little trouble in that line, for I look after the cooking part mostly myself. Sometimes it lies with the smoke house, or insufficient smoke."

"The way I see it there are three points to observe in making sausage:

- The curing and conditions of sausage trimmings.
- 2. How your sausage meats are handled in your chopper.
 - 3. The cooking part."

A packer in Ohio writes: "We feel that this is due and caused by the smoke houses. If you smoke with gas probably your fire is too low and you do not get the proper heat, and thus when you remove your bologna it is not properly smoked and does not keep.

"Our experience and best results have been to salt and cure the meat with pickle for five or six days, then add a like amount of warm bull meat, with the proper seasoning, and then smoke with a good fire and up to this time we have not experienced any bad results."

F. C. ROGERS BROKER

Provisions

Philadelphia Office: 267 North Front Street

New York Office: 431 West 14th Street Another Ohio packer reports: "We believe that if proper attention is given to salting trimmings, that this trouble may be eliminated, as we have found that we have this trouble when we attempt handling trimmings which have not been salted long enough to allow it to take proper cure."

A third Ohio packer writes: "Regarding big gut bologna turning green just under the casing, we have had the same trouble at times, and have always had this experience when the bologna was made out of fresh beef. When the beef was cured before making up the bologna we never had this trouble, but we are not sure whether this was the cause or not."

A packer in New York reports: "We had the same experience with big gut bologna turning green for one-half inch didirectly inside the casing. We have overcome this through proper cooling after cooking.

"We discovered that taking them out of the hot water and directly into the cold and not leaving them in long enough to properly chill, would cause the sausage to cool inside for an inch or so, and the center would still be hot when taken out and hung up to cool. Naturally, the contrast of the heat in the center and the outside cold would cause the green ring."

rast of the neat in the center and the outside cold would cause the green ring."

A Colorado packer writes: "The meat may not be cured properly. I have found that if you cure your meat properly and cook it long enough, regardless of smoking you will not have that trouble."

Another packer writes: "The only trouble we have had with big gut bologna is when meat had not had sufficient time to cure properly, the finished product would show rough grain and be spongy in appearance."

Pearance.

A packer in Arkansas advises: "If one will keep the large bologna in a cooler not colder than 40 degrees and not warmer than 50 degrees you will not have this trouble of the bologna turning green. The direct cause as we find it is putting the bologna in a cooler around freezing temperature, which causes it to be frozen about half an inch in and when taken to a retail store and allowed to remain on the counter at a warmer temperature it will turn green and decay on account of it having previously been frozen."

A very large packer in California reports: "This trouble may be caused by the use of fresh beef bungs containing too much slime, and then hung too closely together on smoke house cages or trees. If bologna is made from cured meats and fresh casings or bungs are used, it should be hung in the cooler over night after being stuffed. This has a tendency to cure the casings and the product will smoke out in a much better condition. In fact, it is always advisable, where facilities permit, to carry heavy sausage in the cooler at least twelve hours after stuffing and before smoking.

"The condition referred to is caused chiefly, however, by using fresh meats and fresh casings and smoking them immediately after stuffing, and then hanging them too closely on cages, which causes delay in obtaining the proper color."

Here is the experience of a western packer: "Almost any wet sausage will occasionally, though not necessarily, form a green ring when hung in a cold smoke house.

"We have overcome this difficulty by having the smoke house thoroughly heated before hanging sausage in it. Also the sausage should be so distributed that heat and smoke will thoroughly circulate and penetrate all to good advantage."

Another packer reports as follows: "It is our opinion that the trouble with the bologna is caused from them being left exposed above the surface of the water in the cooking process. We would suggest that the bologna be submerged while cooking."

ing." A report from a packer in Colorado says; "The meats used in the bologna should be cured more. Possibly the packer having trouble uses a silent cutter and runs his meats through it too long. They should be cooked at 165 degrees for $2\frac{1}{2}$ hours, instead of the $1\frac{1}{2}$ hours as is customary."

Another packer gives us the following solutions: "We think that a remedy for the trouble explained by the Ohio packer will be found in one of the following suggestions:

"1. Casings that are purchased from casing supply houses, etc., are not stamped as to age and these casings sometimes are several years old and require considerable soaking, whereas the casings from a packer's own slaughter are usually fresh salted and require very little soaking. Casings that are very old and not soaked long enough to remove all the salt will cause the big bologna to turn green, or gray, directly inside the casing.

"2. When the bologna meat has not been cured or salted through and is only partly cured the tendency will be to turn gray after manufacture.

"3. The addition of cereal to bologna meat that is only partly cured has a tendency to turn bologna in the center, especially so when the bologna has not been thoroughly cooked through. It is also advisable not to have the smoke house too hot when the bologna is first put in to be smoked."

Another large packer reports: "Our sausage foreman claims we have never had any of this trouble, except in the case of dirty casings. This can be overcome by properly cleaning of the casings. He also thinks it might be due to not smoking enough."

The following solution has been suggested for the problem: "In my opinion there are only two reasons for this trouble: one of them is that the meat isn't cured properly. The other is that the cooking water is not at its proper temperature; it is evidently too cool. It should be cooked at 160 degrees for about 1½ hours."

A report from a large packer in Illinois says: "We feel this trouble with sausage is caused by the fact of taking the sausage directly out of the cold chill room and putting it in the hot smokehouse.

"To overcome this, sausage should be taken out of the cooler for one-half to one hour before putting in the smokehouse and during this period should be allowed to hang in an ordinary temperature."

(To be concluded next week.)

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PROVISIONS AND LARD

WEEKLY REVIEW

All articles under this head are quoted by the barrel, except lard, which is quoted by the hundredweight in tierces.

pork and beef by the barrel or tierce and hogs by the hundredweight.

New High Levels—Hog Movement Moderate—Shipping Demand Maintained— Exports Fair—Stocks Decreasing.

The developments in the provision market have again emphasized the price tendency of livestock and of product generally, with prices gaining very nearly to the high levels of the season, on the principal products with ribs at new high levels and hogs only a little under the season highs. The upward movement of hog products and the general firmness of livestock, and of meat products of all kinds, has been one of the outstanding features of this year's packing operations.

During the late autumn there was a very pronounced feeling that hogs would decline to still lower prices and some of the leading packing interests were confident of a drop to still lower levels in the action of values. From that low point the market advanced $4\frac{1}{2}$ c a pound, reacted about a cent and has since recovered about half of that reaction, so that the prevailing price of hogs is practically 4c a pound or more above the season's low and this advance is not bringing a sufficient movement of hogs to meet the general requirements.

Product Stocks Are Low.

This was emphasized in the statement of product stocks at the beginning of the month, showing a total stock of meats at the seven leading points of only two-thirds of last year and a total stock of lard of only about two-thirds of last year also. The fact that the stocks of products have not been equal to the demand upon the stocks has in a way been due to the hog packing which has been less than last year, and also the general movement of hogs. Since the beginning of the summer season, hog packing has been running more nearly on a comparative basis with last year, but is still slightly

below, and the current movement is not particularly encouraging for any accumulation in meats, although the mid-month statement of product stocks showed a gain of 12,000,000 lbs. for mid-May at Chicago over the beginning of the month, with a grand total of 53,000,000 lbs., compared with 45,000,000 lbs. at the beginning of the month and 84,000,000 lbs. last year.

Some of the trade, confident of a sharp reaction in values, are calling attention to the accumulation in stocks which is going on in lard, but seem to overlook the fact that stocks, while increasing, are much less than last year, and the relative position of the stocks has practically remained unchanged during the two weeks of May. The shipments out of lard from Chicago are continuing less than last year, but this is partly offset by smaller receipts. For instance, last week the receipts were 1.600,000 lbs., against 4.200,000 lbs., against 10,400,000 lbs., against 10,400,000 lbs., against 10,400,000 lbs., against ago.

In and Out Movement of Meats.

The in and out movement of fresh meats and of cured meats is also somewhat along these lines. The receipts of fresh meats for the week were 6,600,000 lbs. against 14,500,000 lbs. a year ago, and shipments 25,600,000 lbs., against 32,900 lbs. The shipments of cured meats, however, showed a large falling off with the decrease in the receipts of only a million pounds and a decrease in the shipments of 9,000,000 lbs.

The export movement picked up again sharply during the week, with exports of lard of 14,190,000 lbs. from Atlantic ports, against 6,700,000 lbs. the preceding week, and 9,200,000 lbs. last year. Exports of meats were 13,900,000 lbs., against 8,600,000 lbs. the previous week, and 8,700,000 lbs. a year ago. The fact that the foreign interest in the market has been maintained has had a good deal to do with the general confidence in values.

Decreased Slaughters Feature.

The statistics available for the movement of livestock presents some very in-

teresting comparisons not only for the month of April but since January 1. The receipts of hogs in April at the sixty-seven markets decreased 162,000 head, and since January 1 have decreased 956,000 head, while the slaughter has decreased 838,000 for the same time. Slaughter of sheep decreased in that time 932,000; slaughter of cattle decreased 77,000, and calves decreased 62,000.

This decrease in the movement has been one of the very important influences in connection with the accumulation in stocks. While the slaughter of hogs decreased \$38,000 compared with last year, the total of stocks would probably have shown some accumulation but for the heavy export movement which has been a very important factor in the general distribution of products.

Condition of Farm Animals.

The monthly report of the condition of farm animals for May 1 showed some very interesting comparisons. The percentage of loss in hogs was a little higher than last year, but decidedly less than the fiveyear average. The comparisons of the livestock follow:

Horses and Mules:	1921.	1922.	Average.
Loss per 1,000 from			
disease	14.7	15.7	19.9
Losses, total number	361,442	385.770	503,767
Condition May 1		94.1	96.4
Cattle (all ages):	00,2	04.4	00, 2
Losses per 1,000 from			
disease	17.0	17.8	90.9
Losses per 1,000 from	11.0	11.0	20,2
	0.0	13.0	14.4
exposure	710 000	0.010.000	0 074 700
Losses, total number	1,410,303	2,010,003	2,051,739
Condition May 1		93.2	99.8
Sheep (not including lambs)	:		
Losses per 1,000 from			
disease		21.5	23.4
Losses per 1,000 from			
exposure	15.6	26.4	29.6
Losses, total number	1,083,659	1,293,363	1,917,742
Condition May 1	95.4	92.8	95.9
Lambs:			
Losses per 1,000 from			
disease and exposure	45.4	62.4	59.8
disease and exposure Losses, total number	428.716	563.131	833.754
Swine:	1201120	000,102	000,104
Losses per 1,000 from			
disease	42.0	54.1	86.6
Losses, total number.	2 411 509	2 082 250	5 469 751
Condition May 1			
Condition May 1	94.0	95,0	93.1

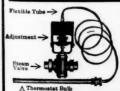
PORK.—The market is quiet and firm. The position of the Western contract market has been nominally very steady. Offerings have been small and stocks are very light. The conditions in the hog market have militated against any price

Exact Temperature Control Essential to Proper Hog Dehairing

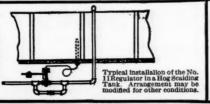
By keeping the temperature in the scalding tank at an unvarying and proper degree you will eliminate mutilation or cutting of the skins. It is an easy matter to allow the water to get too hot by hand regulation.

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These automatic machines keep the temperature at the proper degree. They control the heat with unvarying accuracy because the thermostatic bulb which is immersed in the water is sensitive to all temperature variations. Powers Regulators are simple to install and insure uniform temperature without further attention. They protect the quality of your product and conserve the time and labor of your employes.



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temperature and varied
at will within a range
of 40 descrees. Easily
applied. Put thermostat bulb in liquid to
be controlled and valve
in steam supply.



THE POWERS REGULATUR L

R964-126 East 44th St., New York 2725 Greenview Ave., Chicago 575 Boston Wharf Bldg., Boston

The Canadian Powers Regulator Co., Ltd., Toronto, Ont., Canada concessions. At New York mess pork was quoted at \$26.50@27, family at \$27@29, and in Chicago mess pork was quoted at \$24.

LARD.—The recent larger exports have reflected quite a good business under previous trading conditions, but recently buying has been rather light, and while the market is firm, the volume of business is limited. At New York prime western was quoted at 12.30@12.40c; middle western, 12.05@12.15c; city lard, 11%@11%c; compound lard, 13@13%c; refined lard to the continent, 13.25c; South American, 13.50c, and Brazil kegs, 14.50c. At Chicago regular lard has been quoted at about May price, with loose quoted about 90c under July.

BEEF.—Trading has been very quiet, with New York quoted at \$13.50@14.50 for mess; packet, \$13@14; family, \$16@17; extra India mess, \$24@26, and Chicago plate beef, \$15.50@16; beef-hams, \$55.60@60.

SEE PAGE 41 FOR LATER MARKETS.

CANADIAN CATTLE MARKETS.

Sales of cattle and calves at chief Canadian centers with top prices for selects, compared to the same time a week ago and a year ago are reported as follows by the Markets Intelligence Division of the Dominion Department of Agriculture for the week ending May 11, 1922:

	LE.

	Sales		Top pri		
			Week		
ending	week.	ending	ending	week.	ending
May 11.	1921.	May 4.	May 11.	1921.	May 4.
Toronto (U.					
S. Y.)5,932	6.310	6.242	\$9,00	\$10,25	\$8,90
Montreal (Pt.	.,	-,	4-7	4	
St. Chs.). 634	404	460	8.60	10.00	8.50
Montreal (E.					
End) 473	159	440	8.60	10.00	8.50
Winnipeg .2,139			9.00		9.00
Calgary1,444			7.10		7.10
Edmonton . 824	621	1,142	7.00	8.00	
Prince Albert					
Moose Jaw 73		150			
	CA	LVES.			
	-Sales		Top pr	ice good	i calves
Week	Same	Week	Week	Same	Week
ending	week,	ending	ending	week.	ending
May 11.	1921.	May 4.	ending May 11.	1921.	May 4.
Toronto (U.					
S. Y.)2,891	2.088	2,183	\$11.50	\$15.00	\$11,50
Montreal (Pt.			*		
St. Chs.).2,684	1.466	1.281	7.00	9.00	6.50
Montreal (E.					

38 61

CANADIAN HOG MARKETS.

Sales of hogs at chief Canadian centers for the week ending May 11, 1922, are reported as follows by the Market Intelligence Division of the Dominion Department of Agriculture with top prices for selects, as compared to a week and a year ago.

		-Sales	-	-Top	price se	lects—
	Week ending	Same week,	Week ending	Week	Same week,	Week
		1921.	May 4.	May 11.	1921.	May 4.
Toronto (U S. Y.)		6.433	6.752	\$14.00	\$11.00	\$13.75
Montreal (-1200	0,102	422100	4-21-00	420110
St. Chs.		2.141	1.491	15.00	13.50	14.50
Montreal (-,	_,			
End)	1,186	484	677	15.00	13.50	14.50
Winnipeg	.3,291	1,757	2,716	12.50	13.50	12.60
Calgary	.1,414	942	1,450	12.00	12.10	11.50
Edmonton	. 932	638	1,063	11.75	11.25	11.60
Prince Albe	ert					
Moose Jaw	. 100		145	12.25		12.00

CANADIAN MUTTON MARKETS.

Sales of sheep and lambs at chief Canadian centers, with top prices for good lambs, compared to a week ago and year ago, are reported by the Markets Intelligence Division of the Dominion Department of Agriculture for the week ending May 11, 1922, as follows:

	Week			Top pri Week		lambs Week
				ending		
2	May 11.	1921.	May 4.	May 11.	1921.	May 4.
Toronto (U.						
S. Y.)	557	694	466	\$15.00	\$13,50	\$14.50
Montreal (P	t.					
St. Chs.)		243	496	10.00	7.00	11.00
Montreal (E						
End)		48	322	10.00	7.00	11.00
Winnipeg .		216	121	14.50	12.00	15.00
Calgary		133	561	12.00	10.00	12.00
Edmonton .			53	12.00		11.00
Prince Alber	t					
Moose Jaw.					****	****

ARGENTINE CATTLE SLAUGHTERS.

Slaughters at the various Argentine frigorificos since 1910, according to estimates of a leading authority, are reported as follows:

																				Cattle.
1910																				989,110
1911																				1,286,090
1912																				1,397,338
1913																				1,501,611
1914			٠					٠								٠				1,539,470
1915													,							1,923,142
1916															*					2,355,598
1917																				2,694,063
1918						٠	۰				۰	۰		٠	0		٠	۰		3,681,827
1919																				2,911,796
1920										٠										2,065,628
1921																				1,745,350

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MEAT SUPPLIES AT BOSTON.

Receipts of western dressed meats and slaughter under federal and city inspection at Boston, Mass., are officially reported as follows for the week ending May 13, 1922, with comparisons:

	Week	Week
Western dressed meats:	May 12.	May 6.
Steers, carcasses	 3,220	2,904
Cows, carcasses	 1,019	1,343
Bulls, carcasses	 41	90
Veal, carcasses	 1.200	1.404
Lambs, carcasses	 11,290	8,922
Mutton	 299	280
Pork, 1bs		257,874
Local slaughter:	,	
Cattle	 1.517	1.437
Calves	 4.211	4.681
Hogs		12.823
Sheep	6.162	6,455
	 -,	0,400

MEAT SUPPLIES AT NEW YORK.

Receipts of western dressed meats and local slaughters under federal inspection for New York City, N. Y., are officially reported for the week ending May 13, 1922, with comparisons, as follows:

	Week	Week
Vestern dressed meats:	May 13.	May 6.
Steers, carcasses	7,598	7,728 1/2
Cows, carcasses	420	519
Bulls, carcasses	163	117
Veal, carcasses	21,884	10,403
Lamb, carcasses	27,327	20,469
Mutton, carcasses		5.251
Pork, pounds	934,403	649,586
ocal slaughter, Federal inspecti	on:	
Cattle	10,805	11,100
Calves	19,292	16,733
Hogs	42,639	46,487
Sheep	28.850	32,487

L

MEAT SUPPLIES AT PHILADELPHIA.

Receipts of western dressed meats and local slaughter under city and federal inspection at Philadelphia, Pa., are officially reported as follows for the week ending May 13, 1922, with comparisons:

*	ending	ending
Western dressed meats:	May 13.	May 6.
Steers, carcasses		2,498
Cows, carcasses		511
Bulls, carcasses		124
Veal, carcasses		1,716
Lambs, carcasses	6,175	6,565
Mutton, carcasses	917	1,092
Pork, 1bs	519,741	346,771
Local slaughter:		
Cattle	2,917	2,874
Calves		2,663
Hogs	17,978	17,297
Sheep	6,741	8,800

EXPORTS OF PROVISIONS.

Exports of provisions from the Atlantic and Gulf ports for the week ending May 13, 1922. with comparisons.

1	PORK, BE		
	Week		rom Nov. 1,
€	ended May	ended May	1921, to May
	13, 1922.		13, 1922.
United Kingdom	110		3,526
Continent	60	75	3,966
Continent			1,037
So. and Cent. Amer.			
West Indies			5,736
B. N. A. Colonies.			430
Other countries			535
Total	170	75	15,230
BACON		MS, LBS.	20,200
United Kingdom		17,258,500	207,190,500
Continent	1,975,000	1,340,400	48,358,000
So. and Cent. Amer.			1,008,321
West Indies	13,000		6,429,693
B. N. A. Colonies.		11111111	61,800
Other countries			680,153
Total	4,923,500	18,598,500	263,728,467
	LARD, L	DO	
Fi-14-A Filmma			171 004 014
United Kingdom		6,853,172	151,604,644
Continent		5,743,980	164,361,649
So. and Cent. Amer.			1,057,070
West Indies	75,000		10,231,024
B. N. A. Colonies.		*******	129,000
Other countries			523,600
Total	12,190,073	12,597,152	327,906,987
RECAPITULATION	OF THE	WEEK'S	EXPORTS.
	Pork		
From-	lbs	. hams, lbs.	Lard, lbs.
New York	170	3,956,500	9,561,073
Portland, Me			*******
Boston			1,145,000
Philadelphia			225,000
Baltimore		13,000	
New Orleans			28,000
Montreal		394,000	1,231,000
Total, week	170	4,923,500	12,190,073
Previous week			
Two weeks ago	451		
Con weeks ago	40.		
Cor. week, 1921			
from Nov. 1, 1921,	to May 1	gregate expo	orts, in lbs.,

Bacon and hams. 263,728,467 299,840,394 36,111,927 Lard 327,906,987 437,328,682 109,421,695

TALLOW, STEARINE, GREASE AND SOAP

WEEKLY REVIEW

TALLOW—The past week has shown a little more activity in the tallow market, little more activity in the tallow market, with sales of fair quantities reported. The sales included approximately 250 drums of city specials at 6½c, and a little over 600 drums of extra special at 6¾c. Business was apparently confined to the special market, as no sales of prime city were reported. The tone of the market was classed as a little firmer the middle of the classed as a little firmer the middle of the week, but not enough change was in evidence to be regarded as a definite improvement in the market. At Liverpool Australian tallow was quoted a little lower at 39 shillings for choice and at 37s 6d for good mixed. At the London auction the number of casks offered was 1,534 and the number sold was 228, prices 6d lower.

At New York prime city tallow was quoted at 5½c; special loose at 6½c; extra at 6¾c, and edible at 7¾c. At Chicago trade was quiet with prices steady; No. 1 was quoted at 6¼@6½c, edible 7@7½c, and No. 2 at 4¾@5½c.

OLEO STEARINE-Trade has been of moderate volume the past week; there is some business in the New York market, at an advance of a half cent a pound, sales being reported at 94c. This improvement in the market seemed to be due in large part to a lack of pressure on the market. Quotations at New York were 9½c for oleo; Chicago 8½@8½c; lard stearine at New York 14½c nominal; Chicago 12¼@

OLEO OIL was quiet and steady; prices have improved a little with the advance in stearine with extra quoted at 107%c in New York and 914@934c at Chicago.

SEE PAGE 41 FOR LATER MARKETS.

LARD OIL-The market is steady but quiet; there has been but little pressure on the market, due to the firmness in lard, and a small business only has been reported. At New York edible was quoted at \$1.10 per gallon, extra winter at 92c, extra at 85c, extra No. 1 at 75@77c.

NEATSFOOT OIL-The market has AEATSFOOT OIL—The market has again been steady with small trade reported from day to day. Pure was quoted at \$1.38@1.40, No. 1 at 75@77c, and cold pressed at above \$1.70.

GREASES—A rather quiet market has prevailed, although there has been a moderate gain in tone due to some export in-quiry, and there have been reports of some sales at better levels in western markets. Quotations are given at $5\frac{1}{2}$ @5\%c for choice house grease at New York; $5\frac{1}{2}$ @ 5\%c for yellow; $7\frac{1}{2}$ @8c for white. At Chicago brown is quoted at 5@5\%c, yellow $5\frac{1}{2}$ @5\%c, and house at 5@5\%c.

NEW ZEALAND MAKES MEAT MEAL.

The manufacture of meat meal or flour has been begun in Auckland, New according to recent reports. This meat meal or flour is defined as the lean meat of cattle and sheep reduced by a special of cat process to a fine flour or meal. The report states that a chemical analysis of the port states that a chemical analysis of the product shows a content of 7.5 per cent water, 81 per cent protein, 8 per cent fat, and 8.5 per cent ash. The claim is made for this new process that when fully developed it will work great changes as a sausage filler and in other ways in the meat industry in Australasia.

LARD EXPORTS FROM NEW YORK.

Exports of lard from New York from May 1 to May 16, 1922, according to unofficial reports were 15,438,000 lbs.; tallow, 602,000 lbs.; greases, 1,082,400 lbs., and stearine 306,400 lbs.

GREEN AND SWEET PICKLED MEATS. (Special Letter to The National Provisioner from the Davidson Commission Co.)

Chicago, May 18.—Quotations in green

and sweet pickled meats, f. o. b. Chicago, loose, are as follows:

loose, are as follows:

Regular Hams—Green, 8-10 lbs. avg., 25½c; 10-12 lbs. avg., 25½c; 12-14 lbs. avg., 25½c; 14-16 lbs. avg., 25½c; 16-18 lbs. avg., 25½c; 18-20 lbs. avg., 25½c. Sweet pickled, 8-10 lbs. avg., 25c; 10-12 lbs. avg., 24½c; 12-14 lbs. avg., 25½c; 14-16 lbs. avg., 24½c; 16-18 lbs. avg., 24½c; 14-16 lbs. avg., 24½c; 16-18 lbs. avg., 24½c; 18-20 lbs. avg., 26½c; 16-18 lbs. avg., 26½c; 16-18 lbs. avg., 26½c; 16-18 lbs. avg., 26½c; 20-22 lbs. avg., 25½c; 22-24 lbs. avg., 24½c; 28-20 lbs. avg., 26½c; 20-22 lbs. avg., 25½c; 22-24 lbs. avg., 24½c; 28-26 lbs. avg., 26½c; 20-22 lbs. a

hs. avg., 24½c. Sweet pickled, 14-16 lbs. avg., 26c; 16-18 lbs. avg., 26c; 18-20 lbs. avg., 26c; 20-22 lbs. avg., 25c; 22-24 lbs. avg., 24½c.

Hams-Green, 4-6 lbs. Picnic Hams—Green, 4-6 lbs. avg., 13¼c; 6-8 lbs. avg., 12¼c; 8-10 lbs. avg., 11½c; 10-12 lbs. avg., 11½c. Sweet pickled, 4-6 lbs. avg., 13¼c; 6-8 lbs. avg., 12c; 8-10 lbs. avg., 11½c; 10-12 lbs. avg.,

Clear Bellies-Green, 6-8 23\(\)(c; 8-10 lbs. avg., 20c; 10-12 lbs. avg., 17\(\)(c; T2-14 lbs. avg., 15c; 14-16 lbs. avg., 14\(\)(c) Sweet pickled, 6-8 lbs. avg., 20c; 8-10 lbs. avg., 18\(\)(c); 10-12 lbs. avg., 17c; 12-14 lbs. avg., 14\(\)(c); 14-16 lbs. avg., 14c.

PORK CUTS AT NEW YORK.

(Special Report to The National Provisioner from H. C. Zaun.)

New York, May 17, 1922.—Wholesale prices on green and sweet pickled pork cut in New York City are reported as follows: Pork loins, 28c; green hams, 8.10 lbs. 27c: 10.12 lbs. 26c: 12.14 lbs. 10110WS: FORK 10118, 25c; green name, 8-10 lbs., 27c; 10-12 lbs., 26c; 12-14 lbs., 25½c; green clear bellies, 8-10 lbs., 18c; 10-12 lbs., 17½c; 12-14 lbs., 16c; green rib bellies, 10-12 lbs., 17c; 12-14 lbs., 16c;

sweet pickled clear bellies, 6-8 lbs., 16c; 8-10 lbs., 16½c; 10-12 lbs., 16c; 12-14 lbs., 15c; sweet pickled rib bellies, 10-12 lbs., 16c; 12-14 lbs., 15c; sweet pickled hams, 8-10 lbs., 26c; 10-12 lbs., 26c; 12-14 lbs., 25½c; dressed hogs, 16¾c; city steam land 11¾c; conveyind 13cc lard, 11%c; compound, 13c.

Western prices on green cuts are as follows: Pork loins, 8-10 lbs., 23c; 10-12 lbs., 22c; 12-14 lbs., 21c; 14-16 lbs., 20c; skinned 22c; 12-14 lbs., 21c; 14-16 lbs., 20c; skinned shoulders, 15c; boneless butts, 25c; Boston butts, 18c; lean trimmings, 18c; regular trimmings, 8c; spareribs, 12c; neck ribs, 4c; kidneys, 5c; livers, 2c; pig tongues, 15c; pig tails, 11c.

CHEMICALS AND SOAP SUPPLIES.

(Special Letter to The National Provisioner.) New York, May 16, 1922.—Latest quotations on chemicals and soapmakers' sup-plies are as follows:

Seventy-four to 76% caustic soda, 3%@ 4c lb.; 60% caustic soda, 3\%@4\%c lb.; 98% powdered caustic soda, 4\2@4\%c lb.; 58\% carbonate of soda, 2@2\4c lb.; 58\% carbonate of soda, 2@2%c lb.; talc., 1%

Clarified palm oil, in casks, 2,000 lbs., 8@8½c lb.; commercial yellow olive oil, \$1.15@1.20 gal.; olive oil foots, 9@9½c lb.; Cochin cocoanut oil, 10½@10¾c lb.; Ceylon cocoanut oil, 9¼@9½c lb.

Prime summer yellow cottonseed oil, 12% @13c lb.; soya bean oil, 12@12½ c lb.; corn oil, nominal, 11½@11¾c lb; peanut oil in bbls., New York, deodorized, 12¾@13¼c lb.; peanut oil, crude, tanks, f. o. b. mills, 9%c lb.

Prime city tallow, special, 6½c lb.; dynamite glycerine, nominal, 12½c lb.; saponified glycerine, nominal, 8¼c lb.; crude soap glycerine, nominal, 7½c lb.; chemically received and some solutions of the solution of the solu prime packers' grease, nominal, 15c lb.; prime packers' grease, nominal, 5½@ 5¾ c lb.

Packinghouse By-Products Markets

Chicago, May 17, 1922. The market for blood continues very quiet and there has been no trading during the past week.

-	Un	it ammonia.
Ground		
Crushed	and unground	2.50@2.75
Ground	concentrated tankage	. 2.75@3.00
Ungroup	d	2.25@2.50

Digester Hog Tankage Materials.

The market looked up a bit this week in digester hog tankage and there was a little trading at prices from \$2.75 to \$3.00.

						U	ni	t ammonia.
Ground, 111/4	to	12%	ammonia	 				\$2.90@3.15
Unground, 10	to	11%	ammonia	 ٠.				2.50@2.75
Unground 7	to	00% 0	mmonia					9 50(0) 2 75

Fertilizer Tankage Materials.

There has been a good demand for medium grades of fertilizer and a fair demand for futures. The market is better than it was at the same time last year.

	Unit ammonia.
High grade, ground, 10-11% ammonis	a\$2.30@2.50
Lower grade, unground, 6-9% ammonis	a 2.00@2.15
High grade, unground	2.00@2,20
Medium grade, unground	
Low grade and country rend., ungre	
Bone tankage, unground	
Hoof meal	
Liquid stick	
Hair tankage, dry, unground	
Garbage, tankage, ground	75@1.00

Bone Meals.

There has been a good demand for bone meals. Production has been light but the prices continued the same, although the market was firm.

						Per ton \$28.00@30	.00
Steamed.	ground					22.00@24	.00
Steamed,	unground					14.00@16	.00
Grinding	hoofs, pig	toes	. Wa	ste	bones.	dry 20.00@2	2.00

Cracklings.

Cracklings have had a fair demand at steady prices at the new low levels.

Pork, according to grease and quality...\$60.00@70.00 Beef, according to grease and quality... 40.00@50.00 Glue and Gelatine Stocks.

The production of glue and gelatine stocks has been light and the market in general might be said to have been off a little.

	Per ton.
Calf stock	.\$35,00@40.00
Edible pig skin strips	. 55.00@60.00
Rejected manufacturing bones	
Horn piths	
Cattle jaws, skulls and knuckles	
Junk and hotel kitchen bones	
Hog, calf and sheep bones	. 22.00@24.00
Sinews, pizzels and hide trimmings	
Sheen trimmings	10.00@12.00

Horns, Hoofs and Mfg. Bones.
There has been no new developments in the market for horns, hoofs and manufacturing bones. The offerings of hoofs has been rather light.

	Per ton.
No. 1 horns\$2	
No. 2 horns 1	75.00@215.00
No. 3 horns 1	00.00@150.00
Culls	
Hoofs, black and stripped	22.00@ 24.00
	40.00@ 45.00
	60.00@ 65.00
	50.00@ 55.00
	55.00@ 60.00
	45.00@ 50.00
	60.00@ 65.00
Thigh bones, unassorted, lights	45.00@ 50.00

Hog Hair.
The market shows no change and is very quiet at 1 to 11/4 cents per pound for coil dried hair.

Pig Skin Strips.

There has been a fairly active market and a little stronger one. Edible is still quoted at 3½ to 4½ cents per pound.

INTERSTATE COMMERCE CASES.

(Continued from page 28.)

ritory, also New Mexico, hearings are being held at Southwestern Freight Bureau, Century Building, St. Louis, Mo., on May 25, 1922.

Butter, Eggs and Dressed Poultry Rates.

Revision of rates on butter, eggs and dressed poultry from stations on the Lebanon branch of the N. C. & St. L. Ry. to Eastern Seaboard cities, is proposed in line with similar revision proposed from stations on the Tennessee Central R. R. Hearings before the Southern Freight Rate Committee, Transportation Building, Atlanta, Ga., May 23, 1922.

Cottonseed Rates Changes Proposed.—Cottonseed in bulk or in packages, C. L., minimum weight 30,000 pounds, from A. C. L. R. R. stations in North Carolina to Augusta and Savannah, Ga., and from S. A. L. Ry. stations in North Carolina to Savannah, Ga.; also from points in North Carolina on the S. A. L. Ry., which are located on the A. C. L. R. R., to Augusta, Ga.; also from stations on the Bennettsville & Cheraw R. R. to Augusta, Ga., and from stations on the Hampton & Branchville R. R. and Lumber Co., to Savannah, Ga. Generally speaking, no commodity rates are at present applicable, class or combination rates apply. It is proposed to establish rates from A. C. L. R. R. and S. A. L. Ry. stations named to the points mentioned on basis of the sin-Cottonseed Rates Changes Proposed. the points mentioned on basis of the sin-gle line scale of rates proposed by carriers to the Georgia Railroad Commission for application between points in Georgia, and from stations on the Bennettsville & Cheraw R. R. to Augusta, and from stations on the Hampton & Branchville R. R. & Lumber Co., to Savannah, Ga., on basis of the joint scale of rates proposed by carriers to the Georgia Railroad Commission for application between points in Georgia. Hearing before Southern Freight Rate Committee May 23, 1922.

Fertilizer Rates in South.-Changes are Fertilizer Rates in South.—Changes are proposed in fertilizer and articles taking same rates, C. L., from Knoxville, Tenn., te Southern Ry. Tennessee stations. Present rates: To Knoxville Division and K. & B. Division stations, Class "K" applies; to K. & A. Division, Class "N" applies. Proposed rates: Same as used in establishing rates from McCarty, Tenn. Scale for representative distances: 30 miles and under, 163; 90 miles and over 60 miles, 225; 220 and over 180 miles. 313 cents per net ton. Hearing before Southcents per net ton. Hearing before South-ern Freight Rate Committee, May 23, 1922.

Fresh Meat Rates in Southern Territory. -Changes are urged in rates in fresh meats, salted and not salted, from Vicksburg and Natchez, Miss. (when from be-yond) to Eastern and Virginia cities, Al-bany, Rochester, Syracuse and Utica, N. Y. Present rates, as published in Agent Speiden's I. C. C. No. 420. It is proposed to establish rates on basis of the same percentage of the first-class rates from Vicksburg to destinations indicated as do the present commodity rates from Memphis, Tenn., to the same destinations. Hearing before Southern Freight Rate Committee, May 23, 1922.

Revised Fertilizer Rates Proposed.—Re-

Revised Fertilizer Rates Proposed.—Revision of rates on fertilizer are proposed, C. L., as at present published in Agent Glenn's I. C. C. A-332 from Savannah and Charleston to local stations on the Virginia & Carolina Southern R. R. Proposed rates: From Charleston, 450; from Savannah, 540 cents per net ton. Hearing before Southern Freight Rate Committee, May 23, 1922.

CATTLE CENSUS OF MOROCCO.

The rapid increase in the number of cattle in Morocco is indicated by the comparison of recent census reports which are as follows: 1915, 702,000 head; 1916, 856,000 head; 1917, 1,300,000 head; 1918, 1,702,000 head; 1920, 1,494,000 head.

COPRA AND COCOANUT OIL IMPORTS.

Imports of copra and cocoanut oil into the United States by countries during March, 1922, are reported by the U. S. Bureau of Foreign and Domestic Commerce

	Not	Cocoanu			
Countries.	shredded,	Shredded,			
	pounds.	Lounds. a	anons		
France	******				
Greece					
Italy					
Spain					
Turkey in Europe					
England		******			
Canada-Quebec and Ont.					

Brit. Columbia and Yukon		8,250			
Jamaica	11,195				
Chile		******			
British India			36,82		
		1,521,400			
Java and Madura					
Other Dutch E. Indies	213,403				
Hongkong					
Japan					
Palestine and Syria					
Philippine Islands	10.707.412				
British Oceania	2,833,600				
French Oceania	5 122 267				
riema oceania	0,100,007	******	****		
Total	20.467.787	1.529.650	36 82		

COTTONSEED PRODUCTS CENSUS.

The receipts, shipments and stocks of cottonseed and cottonseed products for the season August, 1921, to April, 1922, are reported by the U.S. Bureau of the Census

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EXPORTS OF VEGETABLE OILS.

Export of vegetable oils from the port of New York during the month of March, 1922, by countries of destination, were as follows

PEANUT OIL.—Denmark, 75,000 lbs.; Jamaica, 100 lbs.; British Guiana, 174 lbs.; Venezuela, 54 lbs.; British India, 81 lbs.; total, 75,409 lbs.

LINSEED OIL.-Costa Rica, 7,601 lbs.; Guatemagua, 1,114 lbs.; Honduras, 5,351 lbs.; Nicaragua, 1,251 lbs.; Panama, 5,969 lbs.; Salvador, 8,669 lbs.; Mexico, 31,976 lbs.; Newfoundland, 15,053 lbs.; Trinidad, 838 lbs.; other British West Indies, 1,373 lbs.; Cuba, 65,184 lbs.; Dominican Republic, Cuba, 65,184 IDS.; Dominican Republe, 4,205 lbs.; Haiti, 1,315 lbs.; Virgin Islands, 782 lbs.; Bolivia, 432 lbs.; Brazil, 778 lbs.; Chile, 2,000 lbs.; Colombia, 19,731 lbs.; Peru, 4,262 lbs.; Venezuela, 12,125 lbs.; British India, 1,866 lbs.; total, 191,375 lbs.

SOYA BEAN OIL .- Panama, 150 lbs.; total, 150 lbs.

CORN OIL.--Greece, 11,364 lbs.; Yugo-CORN OIL.—Greece, 11,364 lbs.; Yugo-slavia, 66,500 lbs.; Costa Rica, 28,650 lbs.; Guatemala, 3,750 lbs.; Panama, 24,060 lbs.; Newfoundland, 200 lbs.; Barbados, 375 lbs.; Jamaica, 94,500 lbs.; Trinidad, 51,100 lbs.; other British West Indies, 380 lbs.; Cuba, 67,250 lbs.; Dominican Republic, 103,800 lbs.: Dutch West Indies, 2,650 lbs. 67,250 lbs.; Dominican Republic, 103,800 lbs.; Dutch West Indies, 2,050 lbs.; French West Indies, 15,200 lbs.; Haiti, 15,085 lbs.; Virgin Islands, 375 lbs.; Argentina, 18,000 lbs.; Chile, 17,600 lbs.; Colombia, 1,760 lbs.; Ecuador, 6,100 lbs.; China, 2,825 lbs.; New Zealand, 4,915 lbs.; British South Africa, 28,995 lbs.; total, 564,984

VEGETABLE OIL LARD COMPOUNDS. VEGETABLE OIL LARD COMPOUNDS.
—Germany, 296,122 lbs.; Norway, 33,000 lbs.; Ukraine, 859,792 lbs.; England, 11, 200 lbs.; Guatemala, 2,572 lbs.; Panama, 2,092 lbs.; Newfoundland, 112 lbs.; Bermuda, 468 lbs.; Barbados, 3,600 lbs.; Jamaica, 7,740 lbs.; Trinidad, 176,017 lbs.;

British West Indies, 7,722 lbs.; other British West Indies, 7,722 lbs.; Cuba, 49,620 lbs.; Douthican Republic, 200 lbs.; Dutch West Indies, 315 lbs.; Haiti, 66,400 lbs.; Virgin Islands, 850 lbs.; Colombia, 340 lbs.; China, 4,320 lbs.; Japan, 2,496 lbs.; Philippine Islands, 5,400 lbs.; New Zealand, 1,000 lbs.; Egypt, 2,000 lbs.;

New Zealand, 1,000 lbs.; Egypt, 2,000 lbs.; total, 1,533,378 lbs.
COCOANUT OIL.—Costa Rica, 1,618 lbs.; Panama, 192 lbs.; Mexico, 106,851 lbs.; Newfoundland, 336 lbs.; Culoa, 109,524 lbs.; Chile, 5,905 lbs.; Colombia, 2,263 lbs.; Japan, 6,600 lbs.; total, 233,900 lbs.
CRUDE COTTONSEED OIL.—Denmark, 103,195 lbs.; Vivoglavia, 11,465 lbs.; othor

103,125 lbs.; Yugoslavia, 11,466 lbs.; other British West Indies, 375 lbs.; French West Indies, 3,800 lbs.; total, 118,766 lbs. REFINED COTTONSEED OIL.—Belgium, 45,697 lbs.; Denmark, 593,157 lbs.; France, 9,766 lbs.; Norway, 206,023 lbs.; Foland, 906 lbs.; Russian Europe, 456 lbs.; Turkish Europe, 40,403 lbs.; Costa Rica, 1,963 lbs.; Guatemala, 9,968 lbs.; Hondu-1,963 lbs.; Guatemala, 9,968 lbs.; Honduras, 795 lbs.; Nicaragua, 1,904 lbs.; Panama, 36,256 lbs.; Salvador, 14,845 lbs.; Mexico, 10,792 lbs.; Newfoundland, 22,630 lbs.; Bermuda, 484 lbs.; Barbados, 382 lbs.; Jamaica, 19,710 lbs.; Trinidad, 1,500 lbs.; other British West Indies, 20,865 lbs.; Cubs. 92,779 lbs.; Dominican, Rapublic Cuba, 92,779 lbs.; Dominican Republic, 61,629 lbs.; Dutch West Indies, 5,183 lbs.; French West Indies, 210,230 lbs.; Haiti, 17,690 lbs.; Virgin Islands, 1,279 lbs.; Arrose lbs.; Virgin Islands, 1,279 lbs.; Argentina, 591,519 lbs.; Colombia, 9,464 lbs.; Dutch Guiana, 7,953 lbs.; Uruguay, 610,704 lbs.; Venezuela, 851 lbs.; British India, 64 lbs.; China, 223 lbs.; Japan, 2,925 lbs.; Philippine Islands, 848 lbs.; Australia, 7,400 lbs.; New Zealand, 2,375 lbs.; British South Africa, 2,625 lbs.; total, 3,173,761 lbs.

COTTONSEED OIL.—Haiti, 2,000 lbs.; Prazil, 262 lbs.; total, 2,262 lbs. OTHER VEGETABLE OILS AND

FATS.-Total, 101,947 lbs.

VIRGINIA-CAROLINA FINANCING.

A new issue of \$22,500,000 Virginia-Carolina Chemical Company 25 year first mortgage 7 per cent sinking fund bonds has been brought out at 98% and interest has been brought out at 35% and interest to yield 7.12 per cent to provide for the purchase, or retirement at or before ma-turity, of all the company's existing funded obligations. The issue will in addition give company additional working capital. There has also been underwritten an issue of \$12,500,000 15 year 71/2 per cent convertible sinking fund gold bonds to be personally offered soon to stockholders. The total authorized amount of the first mortgage bonds is \$35,000,000, of which it is proposed to issue at present \$22,500,000 bonds. They are to be secured by a first mortgage on all the company's physical properties and will be further secured by deposit of the entire \$10,000,000 capital stock of the Southern Cotton Oil Company and stock of other subsidiaries. The properties to be pledged represent a conservative valuation of more than \$45,000,000.

FOREIGN EXCHANGE SITUATION.

Editor's Note—This statement is prepared weekly by the Institute of American Ment Packers from information obtained from The Merchants Loan & Trust Company, Chicago, Ill.

Monetary	Par value in	Value on
Country unit	TT E money	May 18.
Austria-Krone	U. S. Money,	
Austria-Krone	\$.203	.000105
Belgium-Franc		.0829
Czecho-Slovakia-Krone		.0192
DenmarkKrone		.2131
Finland-Finmark		.0208
France-Franc	193	.0909
Germany-Mark	228	.003334
Great Britain-Pound	4.866	4.45
Greece-Drachma		.0420
Italy-Lira	193	.0511
Japan-Yen	498	.4750
Jugo-Slavia-Krone		.0037
Netherlands-Florin		.3875
Norway-Krone		.1852
Poland-Polish Mark	*	.000255
Roumania-Leu		.0070
Thomas The Leu	193	.0010
Russia-Rouble	515	****
ServiaDinar	193	.0147
Spain—Peseta		.1580
Sweden-Krona		.2562
Switzerland-Franc	193	.1914
Turkey-Turkish Pound		***31.4

*No par of exchange has been determined and will probably not be fixed until after the have decided upon all of the requirements those countries.

VEGETABLE OILS

WEEKLY REVIEW

THE NATIONAL PROVISIONER is Official Organ of the Interstate Cottonseed Crushers' Association, the Texas Cottonseed
Crushers' Association, South Carolina Cottonseed Crushers' Association, the Georgia Cottonseed Crushers'
Association and the Mississippi Cottonseed Crushers' Association.

Prices Steady—Trading Moderate—May Discount Increased—New Crops Firm— Cotton Crop News Unfavorable—Crude Oil Firm—Cash Trade Moderate.

The movement of values during the past week in cottonseed oil market has been restricted, with prices showing small net changes. The lack of any initiative in the market, either on the part of bulls or bears, has been one of the difficult factors in the situation to overcome, in creating any interest on either side of the market.

The local trade in oil, both professional and otherwise, has been rather indifferent, and in a good many cases rather disposed to look somewhat indifferently on any effert to advance the market. This has been a distinct detriment, in trying to take advantage of the strong spots in lard and hogs, and has also been a strong offsetting factor against the advances in new crop months, following the excitement in cotton.

Bulls have rather expected the strength in cotton during the week and the advance to new high records, with the sensational reports regarding the amount of cotton area which was to replanted, have passed over the heads of the cottonseed oil trade without restricting the market, excepting

occasionally to produce a little extra buying.

Reports on Need of Replanting.

While cotton was being advanced to new high levels accompanied by claims that several million acres of cotton will have to be replanted, and that it will be impossible to get the seed, the cottonseed oil trade accepted such reports with equanimity and without excitement. Some were inclined to think that if there was any real need of any considerable amounts of seed, it would be to the interests of the cotton-seed mills to somehow get the seed for the planters, as the prosperity the coming year would depend on the size of the cotton crop. The amount of seed required to plant, approximately 37,000,000 acres of cotton would be about 550,000 tons, and the amount required to replant ten per cent of the area, which was the maximum bullish estimate of the amount to be replanted, would be about 55,000 tons. In some localities, of course, mills might be very short of seed and unable to furnish it to those needing to replant.

it to those needing to replant.

The monthly Government report as to production and consumption of oil has been expected this week, and quite conflicting ideas have prevailed as to whether the figures would be bullish or bearish. Some claims have indicated that the April amounts were rather disappointing, but that there was evidence of increase so far in May in the domestic distribution. The relative prices of oil and lard, and of other edible fats, have been difficult to recon-

cile with any large activity in oil, but owing to the small supplies available until the new crop, it might be doubtful whether a large trade in oil would not be a rather difficult thing to take care of in the general situation as to supplies.

Larger Crop Would Not Depress.

An average crop of cotton the coming year, on the acreage which may be planted, would give a supply of seed probably fifty per cent larger than the amount available this year, but even with those conditions, the differences between the old and new crop months has not been such as to indicate any very great expectation that such increased crop would be a materially depressing factor. The relative position of other edible fats is disappointing from the bull standpoint, and prices of clive oil, coconut oil and peanut oil do not offer very much support to the position of cottonseed oil, while the price of edible tallow continues almost four cents a pound under the price of cottonseed oil.

The relative position of prices, however, has been a most misleading one this season, and has been an extremely sensitive situation for those who have expected a swing to a more normal position. This is also true of those who have bought lard and sold oil, and have found that the spread did not work out as expected. This relative position has been equally fatal to those who bought corn and sold lard or the idea that the price of corn would have to come up in closer proximity to the

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price of hogs, but as month after month has passed, this situation has resulted only in constant margin calls and few profits

has passed, this situation has resulted only in constant margin calls and few profits. In regard to the new crop, the feeling among cotton exchange houses has been one of great nervousness, particularly in the Texas region, as it has been feared that normal weather conditions coming in Texas, following the exceedingly heavy rains, would mean that cotton would be seriously affected, but efforts to bull oil on these reports have been ineffectual. As a result of this rather indifferent situation and distinct feeling of uncertainty, there has been a pause in the market, and daily transactions have been on a very limited scale.

COTTONSEED OIL.—Market transactions:

Thursday, May 11, 1922.

		, ,					
		-Ran	Low. Bid.	sing-			
	Sale	s. High.	Low. Bid.	Asked.			
Spot			1190	a			
May	8	300 1197	1195 1193	a 1195			
June			1188	a 1195			
July	72	200 1199	1189 1193	a 1195			
Aug		300 1198	1189 1191	a 1193			
Sept	26	600 1195	1189 1190	a 1193			
Oct		500 1124	1119 1119	a 1121			
Nov	E	500 1025	1019 1020	a 1025			
Dec		300 1011	1010 1005	a 1010			
Total sales, including switches, 19,100							
Prime (Crude, S.	E. 1000	nominal.				

Friday, May 12, 1922.

	riday, may in, ioner													
Sales. High. Low. Bid.									osii	ng—				
									Sales.	High.	Low.	Bid.	A	sked.
May		0							200	1188	1188	1187	a	1188
June		0		۰				0				1176	a	1185
July								0	3000	1197	1185	1185	a	1187
Aug.	٠	0	0		0		۰		6000	1195	1185	1183	a	1185
Sept.		0			9				2200	1191	1183	1183	a	1184
Oct.			۰				۰		1300	1117	1110	1109	a	1111
Nov.			0						900	1016	1010	1005	a	1011
Dec.									800	1005	995	993	a	997
To	ta	1			S	a	1	98	, incl	uding	swit	ches,	1	5,800
Prim	0	4	7	r	91	i	16		SE	1000	nom	nal		

Saturday, May 13, 1922.

		9,		,			
		-	-Ran	ge-	-Clo	si	ng-
					Bid.		
Spot					1170	a	
May	1	100	1180	1175	1172	a	1175
June					1175	a	1184
July	1	300	1182	1181	1181	a	1183
Aug					1180	a	1183
Sept	1	000	1181	1179	1179	a	1180
Oct		400	1107	1104	1103	a	1105
Nov					1000	a	1005
Dec		300	996	995	991	a	995
Total	sales,	inelu	ding	swit	ches,		5,900
Prime C	rude, S.	E.	1000	nomi	nal.		

Monday, May 15, 1922.

		-Ran	ge-	Clo	osii	ng-
	Sales.	High.	Low.	Bid	A	sked.
Spot				1165	a	
May	500	1180	1170	1165	a	1176
June				1178	a	1185
July	3700	1190	1180	1185	a	1186
Aug	300	1190	1187	1187	a	1188
Sept	3700	1190	1180	1187	a	1188
Oct		1122				
Nov		1024				
Dec	1000	1010	1000	1005	a	1007
Total sales	, incl	uding	swit	ches,	1	3,800
Prime Crude,	S. E.	1000	nom	inal.		

Tuesday, May 16, 1922.

		-Ran	ge	-Clo	si	ng-
	Sales.	High.	Low.	Bid.	A	sked.
Spot				1160	a	
May	1300	1161	1159	1155	a	1161
June				1160	a	1181
July	1800	1190	1183	1187	a	1189
Aug	1700	1190	1188	1187	a	1189
Sept	300	1190	1187	1187	a	1189
Oct	700	1121	1114	1121	a	1123
Nov	200	1020	1020	1018	a	1023
Dec	1200	1010	1004	1004	a	1006
Total sale	s, inc	luding	swi	tches	,	9,800
Prime Crude.	S. E.	1000	nom	inal.		

Wednesday, May 17, 1922.

Sales. High. I	e-OW	-Clo	Si	ng-
	AOW.			
Sales, High, I		Bid.	A	sked
Spot		1160	a	1175
May 200 1160 1	1155	1160	a	1164
June		1171	a	1185
July 3000 1191 1	1187	1190	a	1192
Aug 700 1191 1	1190	1191	a	1192
Sept 2000 1190 1	1188	1190	a	1192
Oct 600 1128 1	1126	1127	a	1129
Nov 1300 1024 1	1020	1022	a	1024
Dec 700 1009 1	1006	1005	a	1008
Total sales, including	SW	tches	,	8,800
Prime Crude, S. E. 1000 1				

Thursday, May 18, 1922.

Closed 8 points higher on October and 1 lower to 1 net higher on other positions. Sales, 10,100 bbls. Prime crude, 10.00c nominal; prime summer yellow spot, 11.60c; July, 11.90c; September, 11.90c; December, 10.05c, all bid.

SEE PAGE 41 FOR LATER MARKETS.

COCOANUT OIL.—The market has been rather quiet the past few days, although earlier in the month a fair volume of business was effected, and some estimates have indicated that upwards of 5,000 tons of cocoanut oil have been absorbed by different interests within the past two or three weeks. Prices obtained,

however, have not shown any material change. There has been a moderate inquiry for Manila oil. Copra has been steady and firm. Quotations for oil have been on the basis of 7%@8c for tanks at New York and 8¼@9c in barrels. May shipment from the coast, of Manila oil, was quoted at about 7¼c, sellers' tanks for May, and 7%c for June. Copra prices are quoted at 4½@4%c Pacific coast, and about 4½@4%c New York.

SOYA BEAN OIL.—Prices have been steady with a scattered business only. A

SOYA BEAN OIL.—Prices have been steady with a scattered business only. A report on the Manchurian crop for 1921 made the total outturn about 4,900,000 tons. It is estimated that about 80 per cent of the entire soya bean crop of the world is raised in China and that 60 to 70 per cent of this supply comes from Manchuria. Quotations are: Crude in tanks from the coast, 10c; refined, 12%@13c in barrels at New York.

PEANUT OIL.—Prices have been steady with the market quiet; there has been a redorest consents of the steady exists.

PEANUT OIL.—Prices have been steady with the market quiet; there has been a moderate consuming demand, and asking quotations have been fairly well maintained. Prices are quoted at about 10@ 10¼c per lb. takk cars f. o. b. mills at Southern points, with New York crude quoted at about 11½c and refined 12¾.@ 13¼c

131/4 c. CORN OIL.—The market has been steady, with other oils, but not active. There has been no pressure on the market, and moderate business has sustained values. At New York crude is quoted at 11/2 c; at Chicago, 91/2@91/4 c. PALM OIL prices are steady but the volume of business is moderate. Demand has been, if anything, less active and

PALM OIL prices are steady but the volume of business is moderate. Demand has been, if anything, less active, and there has been less pressure, with Lagos shipment quoted at 71%c; at New York Lagos was quoted at 71½ @ 7%c, and Niger in cocke at 61/2.

in casks at 64c.

PALM KERNEL OIL.—Steadiness in values has again prevailed with only a moderate business reported. Spot is quoted at New York at 9@94c.

FERTILIZER ASSOCIATIONS MEET.

The National Fertilizer Association and the Southern Fertilizer Association will hold their annual convention at the Greenbrier, White Sulphur Springs, W. Va., during the week beginning June 12, 1922. John D. Toll of Philadelphia, secretary of the National Association, is chairman of the convention committee, and the program promises to be one to exceed even the high standards of preceding meetings.

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IMPORTANT RESEARCH IN OILS.

While 1921 showed little development in vegetable oil methods of processing, there are important advances being made at the present time, according to a recent statement of Dr. David Wesson. Governmental investigators are opening up new laboratory capacity to aid producers to discover methods for improving the product.

In spite of improvements in the past few years the methods of manufacture of vegetable oils and fats are still far from perfection. For example, in the matter of alkali refining, it is well known that a large amount of fat is sacrificed in order to get rid of impurities, which must be removed. There have been practically no great improvements in alkali refining for the past 40 years. The reason is that no one knows just what the impurities present in the crude oil are and their chemical and physical properties. This knowledge is necessary to work out means of refining without converting edible oils to soap stocks. To obtain this knowledge careful chemical investigation is needed.

In order to meet this situation the U. S. Department of Agriculture has given a new impetus to the work of the laboratories. A broad-minded administration, recognizing the needs of the vegetable oil industry as an aid to the farmer in obtaining the most for his products has divided the work of the laboratories into two distinct fields, one devoted to the administration of the pure food laws, the other to research.

Under this arrangement, the Department is now working in conjunction with a special co-operative research committee appointed by the Interstate Cotton Seed Crushers' Association. Plan and scope were arranged at a meeting of this committee and the bureau heads last November, and the work is now well under way.

ber, and the work is now well under way.

The investigation covers studies of the cotton plant itself with a view of determining the best varieties for the combined production of the best seed and lint, also the effect of climate and season on the seed and lint. This work is being done in the Bureau of Plant Industry.

The Fat and Oil Laboratory is making good headway in determining the impurities in crude cotton seed oils and their influence on refining.

The Protein Laboratory is studying the valuable food constituents in the cake, while another set of investigations is settling the mooted question of certain poisonous effects sometimes noted in the use of the cake for cattle feed.

OLEOMARGARIN CONVENTION PLANS.

Representatives from over 40 concerns operating more than 60 plants will be present at the convention of the Institute of Margarin Manufacturers at Detroit, Mich., on May 24, 1922, and many dealers from different parts of the country will be guests. A general program published in a recent issue of THE NATIONAL PROVISIONER showed that men prominent in the industry would deliver addresses on transportation, legislation, betterment of trade conditions, and other important subjects.

The decline in the aggregate production of oleomargarin during the past two years will be discussed and some definite plan inaugurated to encourage the distribution of oleomargarin. In this connection an extensive advertising campaign will be put on to popularize its use.

The officers of the association are:

The officers of the association are: President, Edmund Kelly; first vice-president, B. S. Pearsall; second vice-president, Henry Kamsler; secretary and treasurer, J. S. Abbott, all of whom were elected at the convention held in Atlantic City last

NEW YORK COTTON OIL EXPORTS.

There were no exports of cottonseed oil from New York from May 1 to May 16, 1922, according to unofficial reports.

SOUTHERN MARKETS. New Orleans.

(Special Wire to The National Provisioner.)
New Orleans, La., May 18, 1922.—Stocks
of prime crude cottonseed oil are nominal
at 10 cents bid, 10½ cents asked. Refined
cottonseed oil are firm with stocks light
and current production nil. Meal 7 per
cent \$46.00, 8 per cent \$50.00. Loose hulls
\$13.00; sacked \$15.00. All short ton f. o. b.

Memphis.

(Special Wire to The National Provisioner.)
Memphis, Tenn., May 18, 1922.—Crude cottonseed oil in demand at 10c in the valley. Mills are not offering. Meal: 43% is dull at \$51.00, Memphis. There is very little trading. Loose hulls are firm at \$12.50 bid, Memphis.

MANCHURIA BEAN CROP DECLINES.

The Manchurian bean crop during the last season proved to be 20 per cent below the average, instead of 20 per cent above the average, according to recent reports. The causes were early frosts and a change of the acreage of soya bean to kaoliang on account of the prices prevailing for the latter. Estimates place the bean crop at 650,000 tons, of which about 500,000 tons have been marketed.



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SHEEP AND WOOL IN ARGENTINA.

The United States Tariff Commission has just issued a report on the production of sheep and wool in Argentina, with special reference to the cost of production in 1918-1919. Their report is based upon information obtained at first hand by a special agent of the Commission who, in the summer of 1921, observed conditions of the industry in central Argentina and conferred with producers and dealers whose interests extend throughout the

country. Data of a character not previously published are presented in detail for the various provinces as to cost of production, flock management, distribution of sheep and wool, grading, shrinkage, and prices.

The Commission's investigation shows that sheep raising and wool production in Argentina during recent years have been subject to the same disturbing influences that have affected the industry in the United States over a longer period. In the humid northeastern section competition

with other agricultural production has resulted in a decrease in the number of sheep raised since 1900, but coincident with this decline the steady adoption of cross breeding has increased the wool clip and the production of mutton per breeding ewe.

In the semi-arid regions, west and south of the grain-growing areas cross-breeding has been practiced to a less extent, except in the grassy areas of southern Patagonia. At the present time Argentina is the second largest wool exporting country in the world and holds second rank in the number of sheep reported.

During the war period the cost of producing wool and mutton increased in Argentina at about the same rate as in the United States. It is estimated that in the wool years 1917-18 and 1918-19 the cost of producing merino and crossbred wools in Argentina averaged 27.35 per grease pound. In the range region of the United States the average cost in 1918 and 1919 was 45 cents. The cost of operation and total profit per head of sheep shorn varied widely in different parts of Argentina.

URUGUAY LIVESTOCK CENSUS.

The total area of Uruguay is 44,478,000 acres, of which 60 per cent is devoted to stock raising and less than 6 per cent to agriculture. The 1916 census gives the fellowing figures for livestock: Cattle, 7,803,000; sheep, 11,473,000; hogs, 304,000; and goats, 12,000.

DANISH BACON PRODUCTION GROWS.

The production of bacon in Denmark is steadily increasing, according to a report received from a representative of the U. S. Department of Agriculture in London. The weekly exports of bacon from Denrark for the year 1921 averaged 1,630 tons. The weekly exports for the first 10 weeks of 1922 averaged 1,883 tons.

THE WEEK'S CLOSING MARKETS

FRIDAY'S CLOSINGS.

Provisions.

The provision market was very quiet The provision market was very quiet and about steady. Firmness of the hog market prevented any bearish pressure in other lard or meats. The demand for distribution continues to be fairly well maintained and stocks are being distributed pretty steadily with fair export buying. Hogs are holding within a fraction of recent high level and higher prices are not stimulating movement.

Cottonsed Oil.

Cottonseed Oil.

Cottonseed oil was weak on the Govcottonseed oil was weak on the Gov-ernment report of production and distri-bution for April. The total domestic con-sumption was less than expected and ex-ports were disappointing. The domestic disappearance for the month was 111,000 bbls. and exports 11,000 bbls.

The present visible supply of cottonseed eil, including crude, seed and the refined equivalent, amounts to about 861,000 bbls., against 947,000 last month, and about 1,400,000 bbls. last year.

Allowing for some receipts of cottonseed it might be possible that there would be an addition of 50,000 or 75,000 bbls. to the supplies, giving approximately 900,000 to 925,000 bbls. for the balance of the season.

Such a supply, with a distribution for four months of 125,000 bbls. a month, would leave an available supply on hand August 31 of about 400,000 bbls., compared August 31 of about 400,000 bbls., compared with 686,000 bbls. of actual supplies on July 31 last year. Any increase in the domestic, or export, distribution would correspondingly reduce this possible carryover. Four months' consumption is figured, owing to the lateness of the cotton crop this year.

The domestic and export distribution for the month shows 121,000 bbls., as compared with 208,634 bbls. actual average for the eight months previous, and 274,022 bbls. average for the last four months of last year.

Quotations on cottonseed oil at Friday oon were: July, \$11.79@11.82; Septemnoon were: July, \$11.79@11.82; September, \$11.78@11.80; October, \$11.22@11.24.

Tallow.

Special loose, 61/2c nominal.

Oleo Stearine.

Sales, $9\frac{1}{4}c$; extra oleo oil, $10\frac{1}{4}$ @ $10\frac{3}{4}c$.

FRIDAY'S GENERAL MARKETS.

New York, May 19, 1922.—Spot lard at New York, prime western, \$12.30@12.40, Middle West, \$12.10@12.20; city steam, \$11.75@12.00; refined continent, \$13.25; South American, \$13.50; Brazil, kegs, \$14.50; compound, \$13.50.

Marseilles Oil.

Marseilles, May 19, 1922.—Copra fabrique,—fr.; copra edible,—fr.; peanut fabrique,—fr.; peanut edible,—fr.

Liverpool Provision Markets.

Liverpool, May 19, 1922.—(By Cable.)—Quotations today: Shoulders, square, 83s; shoulders, picnic, 76c; hams, long cut, 138s; hams, American cut, 136s; bacon, Cumberland cut, 98s; bacon, short backs, 81s; bacon, Wiltshire, 98s; bellies, clear, 82s; Australian tallow, fine 39s; good 37s; speet land 68s 64 spot lard, 68s 6d.

Hull Oil Markets.

Hull, England, May 19, 1922.—(By Cable.)—Refined cottonseed oil, 48s 6d; crude, 42s 6d.

ARGENTINE BEEF EXPORTS.

Cable reports of Argentine exports of beef for the week up to May 19, 1922, show exports from that country were as follows: To England, none; to the Continent, none; to other ports, none. Exports for the previous week were as follows: To England, 53,390 quarters; to the Continent 27 212 quarters; to other ports, none. nent, 27,212 quarters; to other ports, none.

PACKERS' PURCHASES.

CHICAGO.		
Cattle	. Hogs.	Sheep.
Armour & Co 7,586	9,800	14,347
Swift & Co 7,203		16,306
Morris & Co 7,150		9,675
Wilson & Co 7,044	19,000	8,617
Anglo-Amer. Prov. Co 268	6,800	
G. H. Hammond Co, 2,782	6,500	
Libby, McNeill & Libby. 798		
Brennan Packing Co., 5,900	hogs; Miller &	Hart,
4,000 hogs; Independent Packi	ng Co., 5,800	hogs;
Boyd, Lunham & Co., 5,200 ho	gs: Western I	Packing
& Provision Co., 16,000 hogs; 1 hogs; others, 15,000 hogs.	toberts & Oake	, 5,000
KANSAS CI	ry.	

Cattle,	Hogs.	Sheep.
Armour & Co 2,880	11.875	4.561
Cudahy Packing Co 2,589	6.815	4,545
Fowler Packing Co 444		
Morris & Co 4,063	10.417	2,037
Swift & Co 3,479	12,669	4.668
Wilson & Co 3,512	8,101	4,150
Local butchers 561	1,291	59
OMAHA.*		
Cattle.	Hogs.	Sheep.
Morris & Co 3,837	6,672	5,107
Swift & Co 4,694	8,878	7.727
Cudahy Packing Co 5,225	10.043	6.536
Armour & Co 4,863	10,000	8,034
Dold Packing Co 1,821	4.190	275
Lincoln Packing Co 277		
Wilson Packing Co 1,412		
Ogden Packing Co	524	
Swartz & Co	516	
J. W. Murphy	4.831	
Others 3,831		8,947

*Five-day week.		
ST. LOUIS.		
Armour & Co	Hogs. 9,005 9,756	2,91 3,53
Morris & Co	241	1,12
East Side Packing Co 165 Heil Packing Co 22	5,415 $2,742$	
Krey Packing Co	2,115 2,244 1,054	2
Eutchers' purchases 719 SIOUX CITY.	36,236	1,62
Cudahy Packing Co. 2,659 Armour Packing Co. 2,659 Armour Packing Co. 2,690 Swift & Co. 1,751 Sacks 97 Smith 48 Local butchers 48 Local butchers 5	Hogs. 9,641 9,599 1,182 2 611 7,184	Sheep 84 8
ST, PAUL,	******	611
Swift & Co	Hogs. 23,463 15,513	Sheep 51 46
Katz, R. N		
Others	3,693	

SLAUGHTER REPORTS.

Special reports to the National Provisioner show the number of livestock slaughtered at the following centers for the week ending May 13, 1922:

CATTLE.

CALLE.	
Chicago	
Kansas City	
Omaha	
East St. Louis	6,372
St. Joseph	6.204
Sioux City	6.158
Cudahy	
South St. Paul	
Philadelphia	2.917
Indianapolis	
Boston	
New York and Jersey City	
Oklahoma City	1.626
Children Cary Titter Titter	
HOGS.	
Chicago	110 047
Kansas City	51,284
Omaha	
East St. Louis	
St. Joseph	
Sioux City	21,170
Cudahy	
Cedar Rapids	8.400
Ottumwa	
South St. Paul	38 355
Fort Worth	8,500
Philadelphia	17,978
Indianapolis	27,500
Boston	
New York and Jersey City	42,639
Oklahoma City	
Milwaukee	
Cincinnati	

Cancamater		• •	• •	٠.	•	•	٠.			۰	۰	۰	• •		۰	٠	۰	۰	• •			0	٠	٠	۰	٠		۰	10,100
							1	S	В	I	CI	0	P																
Chicago																													48,216
Kansas Cit	У .																										į.		20,078
Omaha																											ï		27.59
East St. I	ouis	ì.																				-				Ī	ũ		5.989
St. Joseph																													10.544
Sioux City															Ĭ		Ĭ					Ť	Ť	-	•	٠	-	۰	1.44
Cudaby										Ċ	Ĭ	i			ľ	Ċ	•	•			•	•	•	•	•	۰	۰	۰	143
South St. 1	Paul		•		•	•	•			•	•	•	•		*	٠	•	•	• •	٠.			*		۰	۰	۰		1.14
Philadelphia			•	• •	٠	•	٠.			۰	•	۰	٠.		۰	۰	۰		• •				۰	۰	۰	۰	۰		
Indianapolis			• •	• •		•	• •	• •				٠					٠							٠		٠	•		6,741
Boston				۰				4	۰	۰				۰	۰							۰	٠	9			٠	۰	160
			::					1			۰	٠			*	٠							0		0		۰	۰	6,162
New York	unu		JE	31.	86	y	7	1	21	E,	у	٠			0	٠	٠				٠	٠	0		٠	٠	٠	۰	28,850

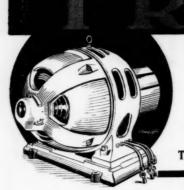
DECEIDTS AT CENTERS

RECEIPTS A	T CI	ENTERS	
SATURDAY, M			
	attle. 500	Hogs. 4 500	Sheep.
Kansas City	300 300	4,500 1,500 4,000	2,000 1,00 0 300
Omaha St. Louis St. Joseph	200	3.000	200
	300 300	3,500 4,500	300
Oklahoma City Fort Worth Milwankee	$\frac{100}{200}$	400 300	300
	400	400 100	
Denver	700 300	$^{200}_{1,000}$	500
	100 100	500 4,000	100
Indianapolis Pittsburgh Cincinnati	100 300	9 000	1,200 500
Buffalo	100 200	2,100 2,000 2,000 2,000	400
Buffalo Cleveland Nashville, Tenn.		1,000	300
MONDAY, M	500 AY 15	400	
C.	04414	Hogs	Sheep. 15,000
Chicago Kansas City Omaha	10,000	40,000 14,000	0,000
Omaha St. Louis St. Joseph	4.000	8,000 15,000 7,500	$\frac{7,500}{1,800}$
St. Joseph St. Joseph Sioux City St. Paul Oklahoma City Fort Worth Milwaukee Denver	$3,500 \\ 3,000$	2,500	3,000 500
Oklahoma City	$\frac{2,500}{500}$	2,500 7,000 2,600	200
Fort Worth	$\frac{1,200}{200}$	3,500	500 100
Louisville	1.000	2,000	3,500
Wichita Indianapolis	1,400	1,300 5,000	200
Pittsburgh	1 500	7,500 6,100	6,000 1,500
Buffalo	1,200 3,700	14.000	6,000
Cleveland	900 500	5,500 600	1,300 100
TUESDAY, M	3,700 [AY 16	800 3, 1922.	200
ou .	attle.	Hogs.	Sheep. 13,000 7,000
Chicago	8,500	21,000 15,000	
St. Louis	$8,000 \\ 4,500$	8,500 16,500 6,000	5,000 $2,500$
St. Joseph Sioux City St. Paul	4,500 1,700 2,300 2,000	5,000	2,500 2,500 500
Oklahoma City	600	10,000 1,600	500
Milwankee	$\frac{1,500}{700}$	$\frac{1,200}{2,500}$	200
Denver Louisville	700 100	2,200 1,500	2,800 700
Indianapolis	1,000	1,200 8,000	100
Cincinnati	100 300	1,000 3,900	1,000 300
Bunaio	100	1,500 2,500	200
Cleveland	100	1,500 1,400	3,000 200
WEDNESDAY,	MAY	17, 1922.	
Chicago	attle. 11,000	Hogs. 16,000 12,000	Sheep. 16,000 5,000
	5,300 $2,500$	9,000	7.500
St. Louis St. Joseph Sioux City		14,000 9,000	4,000
Sioux City St. Paul Oklahoma City	$\frac{1,500}{2,900}$	7,500 11,000	1,000 200
Fort Worth	1,200	2,500	200 100
Milwaukee	3,600	1,000	1,700
Wichita	1,300 800	1,500 1,200	1,700 1,500 100 100
Indianapolis	800 100	6,000 1,800	100 600
Cincinnati	100 700	4.800	1,700 400
Cleveland	200 300	1,600 3,000 1,500	800 1,000
Toronto		1,500 900	200
THURSDAY,	attle.	18, 1922. Hogs. 27,000	Sheep. 11,000 3,000 6,500 500
Kansas City	3,000	27,000 8,000	3,000
St. Louis	1,500	8,500 10,000 4,200	500
Sioux City	1,800	6,500	1,500
Oklahoma City	400	5,300 1,500	200
Chicago Chanasa City Omaha St. Louis St. Joseph Sloux City St. Faul Oklahoma City Oklahoma City Mit Worth Mit Worth Mit Holden	700	1,500 2,000	100 4,100
Milwaukee Denver Indianapolis Pittsburgh Cincinnati	500	2,400 6,000 3,000	200
Cincinnati	500	3.200	2,200
Buffalo FRIDAY, M.	AV 10	1,100	500
1	attle	Hogs. 25,000	Sheep. 4,000
Omaha	500 1,500	3,000 7,000	4,000
St. Louis	900	8,000	500 500
Sioux City St. Paul	700 1,100	4,000 3,500 7,500	100
St. Joseph Sioux City St. Paul Oklahoma City Fort Worth Milwaukee	1.800	1,500 1,500	600
Denver	1 000	500 400	100
Indianapolie	KOO	7,000	1,100 200
Pittsburgh Cincinnati Buffalo	800 100	2,500 5,000 4,800	2,100
	1100	3,000	1,000

NEW YORK LIVESTOCK.

Receipts for the week ending Saturday,

Cattle. Jersey City	Calves.	Hogs.	Sheep.
	10,054	9,975	19,538
	6,824	22,112	1,730
	2,451	99	5,039
Total for week10,626	19,829	32,186	27,307
Previous week10,090	15,731	26,876	29,742
Two weeks ago 8,541	21,731	31,986	82,647



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GERMAN LARD MARKET DULL.

A report from the livestock and meats specialist of the Bureau of Markets and Crop Estimates now in Europe indicates that the market for American lard in Germany has been very dull for the past several weeks. The depreciation of exchange has driven up the price of lard to such an extent that the German consumers cannot purchase at the prevailing prices.

The business in other packinghouse products, such as casings, offal and salt meats, is not satisfactory, but has not experienced the same depression as that of lard.

The exports of lard from the United States to Germany during January and February of this year have been much larger than during the months of November and December of last year but they do not represent the consumption in that country. The German importers have accumulated considerable stock, which at the present writing they are having difficulty in moving.

The exports of lard and neutral lard from the United States to Germany for the eight months ending February, 1922, compared with the same period ending February, 1921, are shown in the accompanying table:

	192		1920	
		Neutral	N	Teutral
	Lard	Lard	Lard	Lard
	Lbs.	Lbs.	Lbs.	Lbs.
July		221,420	8,217,637	
	43,301,835	244,055	8,290,275	
	53,854,033	665,408	9,057,385	
	15,271,675	117,501	15,909,066	
November	6,195,171	58,391	19,792,020	
December	9,401,459	9,664	46,753,036	7,589
_	192	2	1921	
	18,898,030	18,837	18,441,969	18,523
February	29,510,483	678,789	30,382,165	37,505

"BOSS" EQUIPMENT PERFECT.

The Kaw Packing Co., Topeka, Kans., which bought its entire equipment from the Cincinnati Butchers' Supply Co., recently started the operation of its new plant which has a capacity of 150 hogs and 25 cattle per day.

Fred E. Barthman, its superintendent, wrote J. J. Dupps, Jr., of the "Boss" company, who made the sale: "We started pany, who made the sale: "We started killing hogs on Saturday, May 6. All your equipment worked perfectly and we are more than pleased with it, as the hogs came through in fine shape. I'll say it's a good record. Beef equipment also works perfectly. The sausage room equipment is all me and will be tried out shortly." is all up and will be tried out shortly.

Are you taking advantage of the service available on the "Practical Points for the Trade" page? Refer all questions on any feature of packinghouse practice to this de-

HIDE AND SKIN MARKETS

(SHOE AND LEATHER REPORTER)

Chicago.

PACKER HIDES active. About 6,000 pril-May native bulls sold at 9c and 6,000 May light cows made 1314c. Killers are trying for 15½c on native steers, but were unsuccessful today in obtaining it as two more thousand brought 15c again. Texas held at 14½c; butts 14½c; Colorados 13½c; branded cows 11¼@12c; heavy and light cows 13@13½c; sales 15¼c for lights; native bulls 9c; brands 8c.

COUNTRY HIDES-As has been the case in the past week or so, business is slow of consummation. The inaction is heightened at present by the asking of further advances. Local sellers and dealers in choice Ohio and similar sections have advanced their asking prices to 10c for the over 45 lbs. hides. A lot of cows over 60 lbs. is offered at 9c. Tanners have no intentions of bettering the last basis of 9c for grub free lots claiming there is nothing in the leather situation to warrant such advances as are asked. The light end of the list is held at 121/2c for grub free kinds Hides containing about 20% grubs are offered out at 12c for extreme and 9c for The situation is therefore in a waiting position. The contention of sellers is that the advances are warranted by reason of better tone to other kinds of hides, small available supplies and indications for further reduced slaughter. Values are ranged at 9@9½c Chicago basis asked as to lots and sellers, buyers views range down to 8½c. Heavy steers are quoted about 9c; heavy cows and buffs 8¾@9c; for business with up to 10c talked; extremes are ranged at 11½@12c last paid with sellers now trying for half cent advance to 12@12½c basis. The over 60 lbs. hides are slow with goods available at 9c and some held considerably higher; bulls brands are featureless and are generally not sharing in the demands for higher prices. Branded country hides quoted 6½@7c flat; country packer branded hides quoted 9@11c; bulls 6@6½c; country packers 7½@8c; glues 4½@5½c.

NORTHWESTERN HIDES—Twin Cities markets are quiet for the moment due to supplies being somewhat limited. Business of the past week or so tended to clear the market of surplus holdings. Numerous cars of light hides sold at 11½@11½c delivered and fob, as to descriptions and heavy hides made 8½@8¾c. No business is being done in all weights, which are nominally quoted at 8¾@9c. Dealers are not pressing goods on the market, as they expect higher rates later. Bulls 5½@6c; kips 8@11c; calf 9@12c; horse \$3.15@3.50 flat fob.

DRY HIDES-Western all weights quoted 12@14c.

HORSE HIDES—Renderers range at \$3.75@4.25 for quality; mixed hides \$3.50 @3.75 and countries down to \$3.00. Demand moderate.

SHEEP PELTS active. A car of No. 1 packer shearlings sold up to 70c today, being 5c advance. No seconds moved. Woolskins last brought \$2.35@2.40; spring lmbs \$1.00@1.10; dry pelt 20@25c; pickled skins \$2.50@4.00 dozen for lots; gcats 50c@1.15; traders think there is considerable speculation in shearlings; beaverizing skins held at 85c.

CALF SKINS active. Two cars of local first salted city skins sold at 15½c, the asking price of interested seller. Other cellectors continue to talk 16c for straight weight. Lights 8@10 lbs. lately sold at 14½c and heavies 10-15 lbs. are held at 17½c. Packers ask 17c and report tentative bids of 15½c refused. Outside city skins range at 13@15c for quality; country lots quoted 10@12c; deacons 70c@\$1.10 asked.

Kip-skins quoted 14½c paid for packers; cities 14c nominal and outside lots at 11@ 13c: countries quoted at 9@11c nominal.

New York.

PACKER HIDES.—No change noted in city packer goods. The recent sale noted at private terms, cleaned one seller up to May first. Two killers still retain earlier hides unsold. Native steers of April kill quoted at 13½ last paid; first quarter stock reported sold privately at 12¾c; April butts 13c; Colorados 12c; cows 11@ 11½c and bulls 8c. May hides are usually held for a cent appreciation.

SMALL PACKER HIDES.—A car of Brooklyn small packer native bulls sold at 8½ c of April May kill. No other business is reported today. The situation is considered steady to strong. Packers are usually talking up to 12½ c for May all weight cows and 13½ c for steers. Late sales noted in April May cows at 11½ c and steers at 12½ c. Bulls and brands quoted about 808% c.

IMPORTED WET SALTED HIDES.—No change is noted in the market for frigorifico descriptions. Trading is limited by reason of the meager unsold supplies. Most sellers are booked to date or hold just running packs. Holdings among the entire B. A. and Montevideo slaughterers are said to be approximately 25,000 altogether. Last business in standard descriptions of B. A. type stock were effected at \$42.25@42.50 or about 17@17%c c. i. f. New York, while Montevideos topped \$43.75 or 17%c c. i. f. New York basis. Domestic buyers evince mild interest but owing to advancing exchange markets are slow to pay former figures, as this represents further appreciations. Frigorifico type hides have been moderately active of late, ranging at 14@15%c for quality and description. Spot hides are relatively steady to strong in tone, with available supplies rather limited.

COUNTRY HIDES.—Business in country hides is slow due mainly to lack of offerings according to advices from eastern brokers and dealers. Tanners are reported to be making numerous inquiries for good quality hides, generally on the light weight order, but cannot locate offerings, except at prices above what they consider the market. Sellers seem adamant in demanding appreciations and take the position that prevailing prices can always be obtained and that the future is worth speculating on. Mid-West grub free extremes are quoted 12c with some sellers talking higher. Most lots from this section are priced at 12c, containing about 5-10% grubs. Lots with greater percentage of grubs quoted about 11½c. New York, New England extremes quoted 11¼ @11½c for best varieties. Canadians 10½c flat paid. Southern extremes are ranged at 9@11½c for sections and descriptions. Buff weights are priced usually in a range of 8½@9c for sections and descriptions.

CALFSKINS.—Operations in trimmed New York city calfskins are quoted rather slow of consummation. Available supplies are limited. Three weight skins lately sold at \$1.20@1.90@2.60. Sales of lights alone have been recently effected at \$1.25 and middle weights at \$1.95. There are some inquiries in the market for 9/12's alone and sellers ask \$2.75, which tanners consider excessive. Most New York dealers are asking \$1.25@1.95@2.65/75 for three weight skins. An export inquiry was noted for 5/7's at a trifle better than \$1.25, but no business resulted. The situation is hard to define owing to lack of action of late. Outside skins range at 90c@\$1.10 basis on lights with 25@40c

spread on heavier goods. Untrimmed goods range at 14@15c; some held higher; kipskins quoted \$3.00@3.75 for veals; buttermilked quoted \$2.60@2.70 asked.

CHICAGO MEAT TRADE CONDITIONS.

The weekly review of meat trade conditions at Chicago by the United States Bureau of Markets is as follows:

With a determination on the part of wholesalers to keep stock moving, the demand for fresh meat has been forced to some extent and slight declines in prices have been necessary to accomplish this. Rains during the latter part of the week had a bearish influence on trade and butchers bought somewhat sparingly, with the demand very uneven.

The steer supply consisted largely of medium and good grades, selling from \$13 to \$14.50. The limited number of choice bullocks, if not too heavy, easily cleared at \$15, with a few sales slightly higher. However, steers selling at \$14 to \$14.50 were good enough to satisfy most of the higher class trade. Good heifers were not uncommon among the steer offerings.

The supply of common steers was light and carried packinghouse costs practically as high as those of better grade, which naturally raised asking prices on this grade to higher level, resulting in a diversion of the demand for such beef to the better grades of cows or medium grades of steers and weakness in the trade on common steers, which alone show any change in prices from a week ago.

Offerings of cows were more liberal than for the past few weeks. Medium and good cows of strong weight, which formed a good percentage of the offerings, were sold largely in cuts, at prices sufficient to show a general net advance of \$1 over a week ago. Demand from boners was uneven, but in general was sufficient to hold result fully equal to last week's closing figures.

Better grades of rounds and plates cleared well at steady to strong prices, while chucks were uneven and slightly lower than a week ago. Demand for bologna bulls narrowed as the week progressed, resulting in a decline of about 75c for the week. Kosher beef trade was slow, at prices practically unchanged from a week ago.

Under a fairly active demand, veal prices strengthened fully \$1 by midweek. However, with increased receipts, prices weakened some toward the week-end, leaving choice calves unchanged from last week's closing. Other grades about \$1 higher. Although offerings of spring lambs were light, they proved excessive for the demand and prices declined fully \$2 from last week's closing. More aged lambs suffered similar declines under a slow demand. The normal receipts of mutton included fairly good assortments. Handyweight butcher sheep held preference and prices held fully steady until toward the week-end, when they declined around \$1 from a week ago. Common sheep show no change.

Under a fairly good demand, although

Under a fairly good demand, although quite uneven at times, the moderate offerings of pork cleared at prices generally about steady with last week's closing, until toward the week-end, when rainy weather had a bearish effect on the trade and prices were lowered unevenly to reduce holdings to the minimum.

Compared with last Friday, steers steady to 50c lower; cows steady to \$1 higher; bulls 75c lower; choice veal unchanged, other grades a dollar up; lambs mostly \$2 lower; sheep steady to \$1 lower; pork loins steady to \$1 lower; shoulders and picnics unchanged; Boston butts 50c to \$1 higher and spareribs steady to \$1 lower. There will be moderate carryovers of all kinds of meat.

LIVE STOCK MARKETS

CHICAGO.

(Reported by the U. S. Bureau of Markets.)
Union Stock Yards, Chicago, May 18.

Union Stock Yards, Chicago, May 18.

A strong undertone prevailed in the trade on beef steers and butcher she stock since Monday, on which day liberal receipts resulted in a slow to lower market. All the Monday decline has been erased and today's activity and price improvement brought values on beef steers generally 10 to 15c above last Thursday's price basis. Offerings of beef steers have been largely of medium to good grade, although there has been a fair percentage of choice and strictly common steers were

of choice and strictly common steers were comparatively scarce.

The market on packer hides continues to show improvement and offerings are well sold up, a factor tending to assist the live cattle market. Light receipts and good outside demand, as well as fairly active local call, was largely responsible for advancing prices following the opening session. Exporters were on the market most days, taking a moderate quota of medium to good bullocks valued at from \$8.00@8.40. Eastern order buyers wanted the better grades both of light and heavy weights and often paid top prices for their

selections.

week's extreme top was \$9.25, paid The week's extreme top was \$9.25, paid for strictly choice 760-lb. yearling steers, and for a load of prime 1,176-lb. steers. Sales ranging from \$8.75@9.00 were fairly numerous with about 11 loads of medium to strong weight bullocks making \$9.00 today. Sales below \$7.50 were scarce. The rank and file of beef steers sold withing representations.

The rank and file of beef steers sold within a range of \$7.75@8.65.

She stock values show little net change from a week ago, except that canner cows have displayed a declining tendency during the last few sessions. Butcher cows and heifers sold largely within a spread of \$5.85@7.25. Canners and cutters cleared for the extract from \$2.95@4.75 exhalls. for the most part from \$3.85@4.75, shelly kinds of doubtful health selling around

\$3.50 and below.
Bulls 10@15c lower than a week ago. There was some export demand for medium to strongweight beef bulls. Bologna bulls cashed largely at \$4.75@4.85 with \$5.00 being considered the limit on this

Veal calves advanced early in the week Veal calves advanced early in the week but later, in sympathy with the declining lamb market, prices broke. Today's clos-ing prices, however, were still largely 50c above a week previous. City butcher and

Eastern order buyers were liberal purchasers of choice handyweight vealers and paid \$10.50@11.00 for their selections. Packers bought calves from \$9.75@10.25 and better during the high time Tuesday, but on today's market the same kinds brought \$9.00@9.50 with a few choice vealers averaging around 120 to 130 lbs. as high as \$10.00 to packers.

Owing to the scarcity of stock suitable for country outlet, stocker and feeder dealers bought lightly and the country-ward movement was of small volume durthe week. Although prices were practically the same as a week ago, several loads of common stockers have gone out to the country at lower figures.

With shipments light and receipts, locally, about normal, local killers have been the principal factors determining the hog market trend. Big packers were active buyers, especially of lighter weights, and the market ruled firm to higher since Mon-day. Other features of the week's trade have been the narrowing of the price range

Today's trade ruled strong on lighter weights and 5@15c higher on medium to heavy butchers and mixed packing grades. (Continued on page 49.)

KANSAS CITY.

(Special Letter to The National Provisioner.)

Kansas City Stock Yards, May 17.

Further weakness developed in the cattle market today because receipts were above expectations. Trade was quiet. Lower prices prevailed at other markets. Hogs opened weak to 5 cents lower and closed active with packers paying 10 cents higher than Tuesday and up to the level of their high point Monday. Clipped sheep and lambs were 25 to 50 cents lower

and spring lambs about steady.

Larger receipts of cattle than expected, together with further declines in Chicago. forced cattle prices here into a moderate forced cattle prices here into a moderate decline. In extreme cases sales were quoted steady to 25 cents lower, mostly 10 to 15 cents off. When the general decline was established trade became fairly active. The market here will have to mark time until Chicago gets some advance as local prices are relatively too high. Cows and heifers were weak to a shade lower, though best fat grades moved more freely than Tuesday. Veal

moved more freely than Tuesday. Veal calves and bulls were steady.

The hog market today started at a 5-cent decline, but active competition on the part of packers brought strength to the trade and final quotations were 10 cents above Tuesday. Packers bought most of the hogs. Order buyers are held in check by the fact that more Eastern markets do not show a shipping margin over local prices. The top price here was \$10.60 and bulk of sales \$10.40 to \$10.60. Pigs sold up to \$10.75.

Spring lambs at \$14.00 to \$14.25 were quoted steady, but clipped lambs and sheep sold 25 to 50 cents lower. Clipped wethers brought \$7.50 to \$8.00 and clipped wethers brought \$7.50 to \$8.00 and clipped

wethers brought \$7.50 to \$8.00 and clipped lambs \$11.35 to \$12.00, the lowest prices of the season. Prices elsewhere were

ST. LOUIS.

ST. LOUIS.

(Special Letter to The National Provisioner.)

National Stock Yards, Ill., May 17.

Cattle receipts for the week ending today amount to 20,000. There have been
quite a few good cattle in the offerings
this week and on this kind prices have
ruled strong, particularly on yearling stuff.
Good corn-fed heavy weight cattle sold up
to \$8.75 during the week, but the rank
and file of the matured steers with flesh
range from \$6.75@8.00.

In yearling steers the top was made on

range from \$6.75@8.00.

In yearling steers the top was made on Wednesday when two loads of white-faced yearlings averaging 950 lbs. brought \$9.15, and on the same day a load of heifers weighing 903 lbs. brought \$9.00. The bulk of the light weight steers and heifers are selling at \$7.50@8.25, with the better lots going from \$8.35@8.75.

A week undertone characterizes the

A weak undertone characterizes the medium and common cattle. In the butcher cow market the price range is \$5.00@6.75, with a spread of \$5.25@6.25 covering the bulk. Canners and cutters range from \$3.25@4.75 and for the past three days the market has been extremely active. Bulls in the weighty beef elesses. active. Bulls in the weighty beef classes range from \$4.25@5.50, bolognas \$4.50@

It was anticipated that because of the planting season being on in full force that the hog receipts would decline, but this is not the case. The run this week is 71,000 and for the first half of the month there was an increase of 45,000 as compared with the first half of May of last year. The market has been active during the entire period, and prices have shown the entire period, and prices have shown a continual upward tendency. There have been fluctuations, of course, but the average is 10@15c over this time a week ago. Medium and strong weight hogs are selling well in line with the light handyweight butchers. Hogs weighing from 240 to 250 lbs. are selling at the top of the merital though of course the chiral self-course the chiral self-cours

240 to 250 lbs. are selling at the top of the market although, of course, the shipping weights have the preference.

Today's quotations are: Mixed and butchers, \$10.70@10.80; good heavies, \$10.70@10.80; roughs, \$9.10@9.25; lights, \$10.70@10.80; pigs, \$9.75@10.65; bulk, \$10.70@10.80

\$10.70@10.80.

The sheep run this week totals 10,000. Mutton sheep continue slow under an indifferent demand. Light weight ewes are bringing \$7.00 for the good ones and heavy ones selling as low as \$4.00. Good native

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lambs range from \$14.50@15.00, the bulk electing from \$13.50@14.25. Choice Tennessee and Kentucky lambs readily bring nessee and Kentucky lambs readily bring \$15.00, and strictly choice offerings would probably bring a little more money. Clipped lambs make up the big end of the run and they are selling from \$11.00 &12.50. A string of Texas two-year-old wethers, carrying a few yearlings, brought \$9.00 on Tuesday; aged Texas wethers,

OMAHA.

Special Letter to The National Provisioner. South Omaha, Neb., May 17.

A rather sharp slump in the Eastern dressed beef market has been one of the governing factors in the fat cattle trade last week, and while receipts for the first half of this week falls about 5.000 short of a week ago, the trend of steer prices has been steadily downward, declines of fully 25c being noted all around as compared with a week ago. Shipping demand has been cut down quite a bit by the bad situation in the East, and this has tended to slow up the action of the markets.

A spread of \$7.75@8.25 is buying the bulk of the good to choice steers now, with common and fair lots on down to \$7.00@7.50. Some prime heavy cattle that sold as high as \$8.50 this week, and prime yearlings are listed up to \$8.75 or better. On she stock the decline has not been as pronounced as on steers, and beef cows are still selling mostly around \$5.75@7.00, with heifers from \$6.75@8.00, and common canners as low as \$3.50@4.00. Veals are up 50c with tops at \$11.00, while bulls have slumped 50@75c and are moving at \$4.00@7.00.

Packers have been trying hard to break hog values this week, but receipts have been pretty moderate, and while markets been pretty moderate, and while markets have been very draggy as a rule, there has not been any great change in prices, which are almost as high as they were a week ago. With receipts of about 8,000 hogs today the market generally was steady to a shade higher, top for the day being \$10.35, as against \$10.50 for the best lights a week age and bulk of the bers. lights a week ago, and bulk of the hogs moving at \$10.05@10.30, as compared with \$10.10@10.45 last Wednesday

Sheep and lamb prices continue to show a generally lower trend. Spring lambs which have been in fairly liberal supply are about 50c lower than a week ago while clipped lambs have slumped another dollar or more and old sheep are moving downward in sympathy with other grades. Shorn lambs are now moving largely at \$11.75@12.50, with the spring lambs at \$12.50@14.50, yearlings at \$7.00@9.00, wethers \$6.00@7.00, and old ewes at \$5.00@6.00.

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Commission for Buying: \$5.00 per D. D. \$4.00 per S. D. -Any Meat Packer Reference:-

Beef and Pork from the Omaha Market

As a part of the series of letters reflecting conditions at various important livestock marketing centers, which have been appearing in this section of THE NATIONAL PROVISIONER in recent weeks, the following report on the situation in the Omaha market will be read with interest, coming as it does from a recognized authority:

Editor The National Provisioner:

It has been a long time since conditions at the Omaha market have been given any publicity through your publication, aside from your regular weekly market reviews. We believe, however, that your readers will be interested in knowing something

of our situation this spring.
In the territory tributary to this market there is still a small amount of the 1920 corn crop. The best figures we have seen lead us to believe that at present between 30 per cent and 40 per cent of the 1921 corn crop is still undisposed of. Much hay

was carried over the winter.

This situation has resulted in producing the best-finished live stock we have ever handled. Our hogs are a trifle heavier than ordinary, but they are as hard as nails and are killing out wonderfully well. Alfalfa hay and a full ration of corn are giving us the finest beef imaginable.

To illustrate: I was in the coolers of a packing plant I was in the coolers of a packing plant in Cleveland, Ohio, some few weeks ago, and there saw hung up the carcasses of three loads of cattle from three different markets. The eye of a novice could have, without hesitation, picked out the best beef in the three lots; these came from Omaha. And the manager of this concern told me that he payer had killed finer beef Omaha. And the manager of this concern told me that he never had killed finer beef than he was at that time securing from Omaha. This condition still obtains.

During portions of last fall before corn advanced in price, considerable quantities were burned in the Nebraska territory, because it was cheaper than coal. Of course that is not being done now. With this surplus of corn everything in our territory has been on full rations.

Improved Railroad Service.

During a recent trip East I developed the fact that Omaha cattle were in active demand. Railroad service has so improved during the past year that fifth morning delivery on the Atlantic seaboard is regular service. Our freight rates to the East give us an even break with all of the other markets. Two feeds between Omaha and the Atlantic seacoast are all that are required. We have daily freight service from Omaha to Chicago which makes the run without feed in transit.

The probabilities are that our fat cattle will continue to come in satisfactory numbers for sixty days.

The spring pig crop is fairly satisfac-rry. Where hog owners have protected themselves against hog cholera the losses are not severe.

We believe our Eastern friends will do well to keep the Omaha market in mind, and that their wants may be satisfactorily

supplied from this market.

Yours very truly,
A. F. STRYKER,
Secretary-Traffic Manage OMAHA LIVESTOCK EXCHANGE.

MUMFORD NEW AGRICULTURE HEAD.

Herbert W. Mumford, professor of animal husbandry and chief of the animal husbandry section of the experiment sta-tion at the University of Illinois since 1901, has been appointed dean of the College of Agriculture to succeed Dean Eugene Davenport, who recently resigned.

Professor Mumford concluded this spring Professor Mumford concluded this spring an extended leave of absence to direct the livestock marketing department of the Illi-nois Agricultural Association. He was also the secretary of the Farmers' Com-mittee of Fifteen which drew up the plan of marketing livestock adopted by the American Farm Bureau Federation last November. November.

Order Buyers Fat Cattle

Omaha Cattle Figure Best

Frank Anderson & Son Buyers of Cattle Only

Stock Yards Station OMAHA, NEB. Reference: Live Stock, National Bank

ΜΑΗΔ THE CORN BELT MARKET

Superiority of the live stock out of the Omaha market is proved by the high dressing percentage—It's your proof!

Omaha Live Stock Exchange

A. F. Stryker, Secretary-Manager

Stock Yards Station

Omaha, Neb.

ICE AND REFRIGERATION

ICE NOTES.

The Vallejo Ice Co., Vallejo, Cal., is reported to be going to erect a new plant.

J. W. Woodruff, county agent, Cuthbert, Ga., is interested in installing an ice and cold storage plant.

The Grocers & Butchers' Ice Co., Columbus, O., is going to expand their ice and cold storage plant.

The B. E. Roughton & Co., Lakeland, Fla., is reported to be about to erect a cold storage plant.

The Ord Ice Co., Ventura, Cal., will short-r install a first unit of machinery at a cost of about \$16,000.

The Cudahy Packing Co., Omaha, Neb is about to make alterations to their cold storage plant to cost about \$35,000.

The Mt. Pleasant Produce Co., Burlington, Ia., is planning to enlarge its plant by the addition of a cold storage plant.

The Central Ice Co., Hastings, Neb., has been bought by J. M. Gillespie, who will continue the business under the name of the Sanitary Ice Co.

The Joliet Pure Ice Co., Joliet, Ill., has been taken over by a new group and the officers are as follows: John H. Barnes, vice-president, and Clarence Lauer, secretary and treasurer.

The Cash & Carry Ice Co. of St. Paul, Minn., has been inorporated with a cap-ital of \$50,000. D. E. Bray of St. Paul is president; J. W. Leet of Minneapolis, vicepresident; and F. J. Mulcahy, secretary.

Cold storage facilities at Montreal have been greatly increased by the recently completed cold storage warehouse and plant built by the harbor commissioners. This is of special interest to exporting packers, some of whom are shipping via Montreal as well as via American ports. The new warehouse is 440 feet long, 110 feet wide and ten stories high. It is situated adjoining a dock where any ocean liner reaching Montreal may berth. Ten refrigerator cars may be switched into the house adjoining the trucking platform. Ten others may be loaded or unloaded from a track just outside the warehouse. Motor trucks or teams to the number of thirty, all under cover within the walls of the building, may handle goods directly at the trucking platforms. The storage capacity of the entire plant amounts to 4,628,-000 cubic feet. An air conditioning plant has been installed for use in each of the

cold storage compartments.

One and a half million cubic feet of dry storage and 450,000 cubic feet of natural cool storage space, such as above, are also provided in this building, on floors 440 feet long by 110 feet wide.

The building is equipped with four freight elevators, each of 13,000 pounds capacity, and one passenger elevator of 2,000 pounds capacity. Four mechanical platform conveyors with gravity or belt connection to or from the ocean vessels are being designed.

Nine compartments, each connecting directly with the main corridor, which is 280 feet long and 20 feet wide, are provided neet iong and 20 feet wide, are provided on each cold storage floor, with the follow-ing temperatures: Suitable for meats, 5 to 15 deg. F.; suitable for eggs, cheese, fruits, etc., 30 to 34 deg. F.; suitable for general merchandise, 25 deg. F.; suitable for butter, fish and poultry, 10 to 14 deg. F.

PACKER ACT ENFORCEMENT.

(Continued from page 27.)

"The duties of these supervisors in general, will be to supervise the practices in the yards over which they have jurisdic-tion: We wish farmers and stockmen to go to the supervisors whenever they believe they have received unfair treatment, and also to report any unfair practices which have come under their observation.

Stop Cause of Complaints.

"Many matters of which shippers feel they have reason to complain can be set-tled on the spot if they are reported in person on the day the reason for the com-plaint has occurred. Whenever the two plaint has occurred. Whenever the two parties to a misunderstanding can be brought together by a third party whose sole purpose is to do the fair thing by both, there should not be very much trou-ble in adjusting matters to the satisfaction of everybody. I hope, therefore, that shippers to these markets will help us enforce the law properly by reporting immediately any grievances. Moreover we wish them to get personally acquainted with the Government's representatives.

"It is not an easy thing to build up rapidly the sort of an organization we must have to enforce this law in letter.

must have to enforce this law in letter and spirit and de full justice to everybody. In the various yards we need men who have a good working knowledge of stockyards practices and who at the same

stockyards practices and who at the same time are fair-minded, impartial, even-tempered men, of strict integrity, and who have the ambition to render real service. "I am glad to say we are making progress and are getting a fine group of men. Recently we had all of our supervisors come to Washington and spend a week in the Department, exchanging experiences and receiving instructions from Mr. Morrill, the head of the administration: Judge Hainer, his assistant in charge tion; Judge Hainer, his assistant in charge of legal work; Mr. French, the general auditor; Mr. Gore, who has supervision of



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The machine occupies a comparatively small floor space.

All the power developed by the motor is delivered to the crankshaft of the machine.

These machines are built in sizes from 30 tons refrigerating capacity upwards.

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age Co.; Frank R. Small, 619 Equitable Bldg.
Boston—G. W. Goerner, 40 Central St.
Buffalo—Central Supply Co.; Keystone Warehouse Co.
Chicago—Ernst O. Heinsdorf, Chemical Bldg.
Cleveland—Curtis Bros. Transfer Co.
Detroit—Brennan Truck Co.

El Paso—R. E. Huthsteiner, 615 Mills Bldg. Jacksonville—Jacksonville Whee. & Distrib-Jacksonville—Jacksonville Whse. & Distrib-uting Co.
Mexico, D. F.—Ernst O. Heinsdorf,
New York—Roessler & Hasslacher Chemical Co., 709 Sixth Ave.
Newark—American Oil & Supply Co.
New Orleans—O. E. Lewis Co., Inc., 688 Camp St.

St.
Norfolk—Southgate Forwarding & Storage Co.
Philadelphia—Henry Bower Chemical Manufacturing Co.

e, may be obtained from the following:

Pittsburgh—Pennsylvania Transfer Co., Duquesne Freight Station; Pennsylvania Brewers Supply Co., 188 Tenth St.

Produce—Edwin Knowles, 26 Custom House St.

Richmond—Bowman Transfer & Storage Co.

Rochester—Rochester Carting Co.

Savannah—Savannah Brokersge Co.

San Francisco—Mailliard & Schmiedeil.

Toledo—Moreton Truck & Storage Co.; G. H.

Weddie & Co., 67 Walbridge Ave.

Washington—Littlefield, Alvord & Co.



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W YORK - CHIC

trade practices; Mr. Bray, who is Mr. Morrill's general assistant; and Mr. Dagger, who is in charge of the rate division. After a week here the supervisors went back to their respective posts with a much better understanding of their duties and respon-sibilities, and with enlarged knowledge obtained from exchanging experiences with one another.

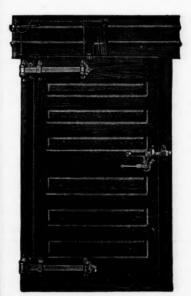
No Arbitrary Action Taken.

"Already we have been able to bring about a decided improvement in a number of market practices. At St. Louis, for example, a boycott instituted by some of the commission merchants against certain other firms doing business was discontinued after a conference of two days with the representatives of this Department. At another point an advance in charges for feed was held up pending investigation as to their reasonableness.

"At still another point certain abuses with regard to gratuities to some shippers have been eliminated. Attention has been given to the prices paid by packers for given to the prices paid by packers for cattle reacting to the tuberculin test, and in the future fairer prices will be paid for these cattle which are fit for food. The principle of standard containers has been adopted by the packers and as an immediate result certain off-size butter

"As soon as the organization is in full swing a thorough investigation will be made of a number of matters which, bemade of a number of matters which, because of their nature, can not receive immediate attention. It is our expectation to enforce the law, both in letter and spirit, but we shall not assume that men are rascals unless they have been proved

to be such.
"On the contrary, we take it for granted that the various people who are under the supervision of this law will be glad to co-operate with us in eliminating any abuses or unfair practices which, intenabuses or unfair practices which, intentionally or otherwise, may have grown up as this great industry has developed. No arbitrary action will be taken. Every man will have a fair hearing, and every opportunity will be given him to voluntarily cornect any practices which seem to be in violation of the law."



JAMISON'S STANDARD TRACK DOOR

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Chicago Section

John W. Rath of the Rath Packing Co., Waterloo, Ia., was a visitor in Chicago this week.

Max Findeiss of the C. Findeiss & Sons Co., Zanesville, O., was in Chicago on business this week.

Fred T. Fuller, president of the Iowa Packing Co., Des Moines, Ia., paid a short visit to Chicago this week.

H. W. Luscher, manager of the United States Glue Co., at Milwaukee, Wis., ran down to Chicago this week.

G. C. McPherson of Toronto and a prominent broker of that city, was in Chicago during the last few days.

C. S. LaForge of the Ames Disposal Co., Ames, Ia., called on his friends in Chicago during the earlier part of the week.

Fred Dryfus, president of the Dryfus Packing & Provision Co., Lafayette, Ind., was in Chicago during the last few days.

Isaac Powers, president of the Home Packing & Ice Co., Terre Haute, Ind., was in Chicago this week on one of his frequent trips.

H. P. Hill is now associated with the Rath Packing Co., Waterloo, Ia., having been formerly with the United States Export Provision Co.

Packers' purchases of livestock at Chicago for the first four days of this week totaled 35,176 cattle, 83,089 calves, 60,569 hogs, and 40,076 sheep.

Swift & Company's sales of carcass beef in Chicago for the week ending Saturday, May 13, 1922, for shipments sold out, ranged from 9.00 cents to 16.00 cents per pound, average 12.60 cents per pound.

John Murray, New York manager of Sterne & Son Co., the well known pack-

H. P. Henschien R. J. McLaren HENSCHIEN & McLAREN Architecte 1637 Prairie Ave. Chicago, Ill. PACKING PLANTS AND COLD STORAGE CONSTRUCTION

Fred J. Anders Chas. H. Reimers **Anders & Reimers**

314 Brie Bldg. Cleveland, O.

inghouse products brokers, has been paying a short visit to Chicago on his way back home from a business trip to Cuba.

F. E. Lykes of Lykes Bros., Inc., Havana, Cuba, who is well known to the trade throughout the country, is now on an extended visit in the Middle West, partly on business but combining with it pleasure as well.

Shipments of provisions from Chicago for the week ending Saturday, May 13, 1922, with comparisons, were as follows:

Last	Prev.	Last
week.	week.	year.
Cured meats12,962	11,400	21,806
Lard 6,361	6,135	10,439
Fresh meats25,576	22,970	32,879
Pork 6	5	9
Canned meats 14	13	37

CHICAGO HOG PURCHASES.

Purchases of hogs by Chicago packers for the week ending Thursday, May 18, 1922, are reported to The National Pro-visioner as follows:

20
60
70
00
50
00
20
30
40
10
20
60
00
10

106,900

CHICAGO STOCKS OF PROVISIONS.

Stocks of provisions at Chicago on May 14, 1922, with comparisons, are officially reported as follows:

1922.	1922.	1922.	
4,322	455	417	Mess pork, new, made since Oct. 1, 1921, bbls.
74,962,244 8,835,023	39,918,340 5,229,175	17, 104, 724	P. S. lard, made since Oct. 1, 1921, lbs Other kinds of lard
6,860,303		505,264	Sh. rib middles, made since Oct. 1, 1921, lbs.
5,628			Sh. rib middles, made previous to Oct. 1, 1921, lbs.
2,920,893	650,561	786,345	Ex. sh. cl. middles, made since Oct. 1, 1921, lbs

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OVERSEAS FREIGHT IN TEN DAYS.

A train load of packinghouse products raced from Chicago to New York this week on the first lap of a race, which W. I. Ware, foreign trade commissioner of the Chicago Association of Commerce, called "the biggest thing that has ever been done for the commerce of Chicago." The train had the right of way and was under orders of New York Central officials to make the trip to New York in forty-eight hours or less. The train load of goods will be loaded on the liner Majestic for shipment to Southampton. If the hopes of the promoters of the race are realized, the products will be laid down in Europe just one week after leaving here-a world's record for speed in freight shipments, and three to four times as fast as Chicago-to-Europe freight is ordinarily shipped.

By proving that freight can be shipped from Chicago to Europe in a week, Chicago Association of Commerce officials hope to bring about the establishment of a fast package freight system from here to Europe, under which they can guarantee overseas customers deliveries within ten

The race was decided upon after a long study of the difficulties in the sale of such products overseas. A. W. McLaren, traffic manager of Morris & Company, was asked hanager of Morris & Company, was asked to take charge of the experiment. Mr. McLaren, who spent many years in the railroad game, laid the plan before W. A. Terry, freight traffic manager of the New York Central Railway, and J. D. Roth, general manager of the International Mercan-tile Marine, owners of the liner Majestic. A special freight was organized, cargo

space for twenty carloads of Morris products was reserved on the Majestic, and after no end of difficulties, permission was obtained to load the Chicago goods on the Majestic from barges on Saturday, sailing day. The freight train left on orders ing day. The freight train left on orders to make the run in forty-eight hours, and the railway men were betting it would be done in forty-five hours. The Majestic is expected to make the run across the ocean in five days, bettering its record on its maiden trip to New York by about sixteen This will land the Chicago packinghouse products in England next Thurs-

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CHICAGO

INSTITUTE DEVELOPMENT PLAN.

(Continued from page 26.) established in 1874. In this year a complete four-year course was offered, leading to the degree of civil engineer. By 1905 instruction had been extended to include mechanical, chemical and electrical engineering, and the enrollment in the several departments totaled 120 students.

In September, 1906, instruction on the co-operative plan was begun, and the first class of 27 co-operative students was admitted. The regular full-time theoretical mitted. The regular full-time theoretical courses were continued, with an enrollment of 107 students, but the co-operative course was offered as an alternative to those students of mechanical, chemical, and electrical engineering who wished to combine practical experience with their combine practical experience with their combine practical experience with their study of technical theory. Under the cooperative plan, a carefully co-ordinated schedule was arranged, whereby the student spent six years in alternate weeks of classroom instruction at the university and of practical work in the industries of Cincinnati. The co-operative class was dithe co-operative class was divided into two sections, one of which was at the university, while the other was at work in the shops, and vice versa. Unless by special arrangement, each student had an alternate, so that both the school and the shop were always full-manned. During the first year the university co-operated with fifteen firms, including chiefly manufacturers of machine tools and of electrical equipment.

"In September, 1909, a co-operative course in civil engineering was added to those in mechanical, electrical, and chemical engineering. The enrollment of cooperative students in the four departments for this year was 203 as compared with 62 in the corresponding four-year theoretical courses. By this time the number of cooperating firms had increased to thirty. Four railroads, a construction company, consulting engineering firm, and city, county and federal engineering departments, were among the additional sources of experience provided for the new class in civil engineering.

Cincinnati Example of Growth

"The years from 1909-1910 to 1916-1917 witnessed a steady growth of the co-operative course in the four departments already mentioned. The total enrollment in the co-operative and in the regular course for each year together with the course for each year, together with the number of co-operative firms, is shown in the following table:

Year	Enrollment in the Regular Course	t Enrollment in the Co-operative Course	Number of Co- operating Firms
1910-1911		176	40
1911-1912	48	239	55
1912-1913		294	68
1913-1914	30	376	73
1914-1915	34	424	75
1915-1916	36	441	82
1916-1917	97	472	96

"More significant than the number of "More significant than the number of firms are the variety of industries and the increased radius of operation. Typical of the firms added were rolling mills, structural iron works, a gas and electric company, and manufacturers of automobiles, elevators, engines, bicycles and motorcycles, cash registers, fire engines, printing registers, as registers, are engines, printing machinery, papermaking machinery, adding machines, roofing, ink and soap. The area covered by these industries included not only the city and suburbs of Cincinnati, but also Hamilton, Middletown, Dayton, Piqua and Springfield, Ohio, and Richmond and Indianapolis, Ind. During this period the time of the co-operative course was changed from six years of nine months each to five years of eleven months each, and the period of alternation was changed from one week to two.
"As in other departments of the univer-

sity, the enrollment in the College of Engineering was cut down by enlistments during the war. ing the war. For four months, beginning with September, 1918, the outside work of the co-operative course was discontinued in order that the students who remained

might spend all their time in the work of the Students' Army Training Corps. In January, 1919, both the outside work and the usual technical instruction were resumed. In September, 1919, there was

co-operative students.

"In April, 1919, the College of Commerce was merged with the College of Engineering, and a reorganization of both courses was begun by committees of the two faculties. Two important changes grew out of this merger. As a result of the experience of co-operative engineering students and alumni in practical work, provision was made for including a certain amount of commercial training in the engineering course. At the same time, owing to a demonstrated need of commercial students for an acquaintance with engineering phases of industry, instruction in the fundamental sciences on which engineering is based sciences on which engineering is based was included in the course for commercial students. The latter were also scheduled students. The latter were also scheduled on the co-operative plan for alternating bi-weekly periods of practical experience with industrial and commercial firms in the Cincinnati area. A more general change, affecting both engineering and commercial courses, was the close correlation of related subjects such as mathelation of related subjects, such as mathematics, mechanics and physics, with a schedule of current instruction in these branches, whereby the same principles were taught at the same time in the various courses.

"In September, 1920, a further step in the development of co-operative instruc-tion was taken, when a class of seven young women was admitted. Their studies are identical with those of the commercial students, and their practical experience is designed to prepare them for supervisory and technical work in industries in which

and technical work in industries in which large numbers of women are employed.
"In September, 1920, because of the small enrollment of regular (four-year) students, the theoretical course was abandoned, and all of the work was placed on a co-operative basis, with an enrollment of 950 students. The number of co-operating firms is now 150.'

Inkling of Institute Future.

The foregoing statement is certainly highly creditable to the initiative and organizing ability of the University of Cincinnati and its College of Engineering and Commerce. But it also gives an inkling, I think, of what a wonderful piece of work an institute of meat packing, operated as a part of the Institute of American Meat Packers, could do for the packing industry and its personnel, present and future.

The institute as a trade association is exemplified fully by its present work and organization; and the institute as an in-dustrial museum and central market place is without precedent so far as my own observation extends. But I think this phase of the plan is essentially sound and might afford a convenient means for the institute to finance an appropriate home of its own.

In citing the examples which I have mentioned of work done by other industries and other institutions, I have not intended to imply that they are precisely analogous to the several phases of the plan proposed. They are not parallel cases, but are precedents illustrating possibilities.

To recapitulate the plan in a sentence: It proposes that the institute, housed in an appropriate building of its own, shall be a research organization; an educational institution offering instruction to men expecting to enter the industry and to persons already engaged in the industry; persons already engaged in the industry, a trade association; an industrial museum and national show window for packing house materials and supplies.

That is an ambitious program. Its examination, not to say its accomplishment, will necessitate an Institute Plan Commission. The appointees to this commission are named on the next two pages.

Respectfully submitted, THOMAS E. WILSON, President.

CHICAGO PORK QUOTATIONS.

Wholesale prices of cured pork and pork products, per 100 pounds, for the week ending May 5, 1922, with comparisons, are quoted by the U. S. Bureau of Markets, as follows at Chicago:

	May 5.	Apr. 28.	Apr. 7.
Hams, smoked,			
14-16 average	\$28.00-20.50	\$28.00-29.50	\$28.00-30.00
Hams, fancy,			
14-16 average	31.50-32.50	30.00-32.00	30.00-32.50
Picnics, smoked,			
4-8 average	16,00-18,00	15.75-18.00	15.50-17.50
Eacon, breakfast,			
6-8 average	25,50-27,00	25.00-27.00	25,00-27.00
Facon. fancy,			
6-8 average	31,00-35,00	32.00-35.00	32,50-36,00
Bellies, D. S., 14-			
16 average	15.00-15.50	15.50-16.00	15.00-15.50
Backs, D. S., 14-	** ** **	44 07 40 00	** ** ** **
16 average		11.25-12.00	11.50-12.50
Pure lard, tierces		12.60-13.25	11.50-13.25
Compound lard,			40.00 44.00
tierces	12.50-14.00	12.50-14.00	13.00-14.00

CHICAGO LIVESTOCK MARKETS.

(Continued from page 44.)

Top for the day of \$11.00 was paid freely for good light weights, with bulk of the good 170 to 230-pounders going from \$10.90 @11.00, and good 240 to 300-lb, butchers from \$10.70@10.90, very few going under As compared with week ago, today's top at \$11.00 showed an advance of \$15. while bulk from \$10.55@11.00 was 20 \$15, while bulk from \$10.55@11.00 was 20 @35c higher and average cost, estimated around \$10.76, a good 25c higher. Light and light weight butchers closed 20@25c higher, with medium and strong weights advancing 25@40c.

Packing sows sold well all week closing prices largely from \$9.60@10.00, or 25@40c higher than a week ago. Pigs failed to show the strength manifested on other grades and closing prices show sharp declines of 35c@\$1.00. The lighter weights off most.

With dressed lamb and mutton markets with dressed lamb and mutton markets continuing droopy and shipping demand for fat sheep and lambs of very small volume, receipts this week, although lighter in the aggregate at leading markets than the week previous, have been excessive as measured by demand and prices have been subjected to further sharp downward revision. Tcday's trade stood unevenly \$1.00@1,50 lower on most classes and grades selling for slaughter than a week grades selling for staughter than a week ago today. This break, on top of declines previously enforced carries today top on shorn lambs \$2.20 below the high spot early in the month and puts heavy fat ewes around \$4.50 below that time when but few of the latter class were coming and when they were wanted.

Today's top on shorn lambs at \$12.75 compared with an extreme top of \$14.95 at the high time early in the month, and bulk of shorn lambs, now selling around \$11.50@12.50, show \$2.25@2.50 declines from that time. Very good handy wooled Colorados Wednesday sold at \$14.75 against \$16.65 at the month's high time. Only a few loads of wooled lambs arrived this week.

Strictly good to choice California spring lambs today sold at \$14.60@14.75 against initial shipments of the same grades to this market this season, arriving May 1, \$17.15@17.35 and \$15.75 to packers last Friday. Some of medium grade have sold this week at \$13.50@14.25 and feeders have taken most of the seconds at \$12.25 @12.60. Good native springs sold today at \$14.50, others at \$13.25@14.00, with some culls at \$11.50@12.00 and "dingers" lower.

Yearling wethers and twos today at \$9.00 were equally as desirable killers and but little heavier than some selling up to \$11.75 or better early in the month and fed-Texas wethers at \$7.75 on Wednesday were a kind making \$9.50@9.75 at the month's high time when lighter fed Texas were a kind making \$9.50@9.75 at the month's high time when lighter fed Texas wethers reached \$10.00@10.10. Fat heavy native ewes today sold as low as \$4.00@4.50, a few at \$5.00, against \$8.50 and above early in the month and good fancy handy California ewes today at \$7.00 com-pared favorably with some at \$8.75 early in May.

CHICAGO LIVE STOCK

CHICAGO LI	VE ST	rock	•	Previous v Cor. week,
RECEIL	PTS			Cor. week, Cor. week, Cor. week,
0-111	Cl. lane	Tromo	Sheep.	Cor. week,
Cattle. Monday, May S 17.058 Tuesday, May 9 11.114 Wednesday, May 10. 13.081 Thursday, May 11 14.127 Friday, May 12 3.888 Saturday, May 12 3.888	Calves.	Hogs.	23,636	Cor. week,
Tuesday May 9 11 114	4 618	22.201	5.542	Cor. week, Cor. week,
Wodnosday May 10 13 081	2 239	34.207 22,291 17,373 28,702 20,371	5,542 9,271	Cor. week,
Thursday May 1114.127	5.354	28,702	10,667	Cor. week,
Friday, May 12 3.888	902	20,371	9,389	Cor. week,
Saturday, May 13 500	902 200	5,000	2,000	Cor, week
				Cor, week,
Total for week 59,768	16,491	127,944	60,505	
Previous week67,658	20,027	138,089 127,585	56,634	Average,
Year ago	18,525	127,585	79,534 39,287	Prices at
Two years ago66,132		187,551	30,201	
Monday, May 8 4,839 Tuesday, May 9 2,555 Wednesday, May 10 4,594 Thursday, May 11 3,406 Friday, May 12 2,688 Saturday, May 12 2,688 Saturday, May 18 200	NTS.	6.767	737	Beef Steer
Tuesday May 9 2.555	115	6,767 2,485 2,512	2.191	Med. an
Wednesday, May 10., 4,594		2,512	2,191 3,388	Choice Good
Thursday, May 11., 3,406	5	2,151	3,679	Mediu
Friday, May 12 2,688	2	3,032	2,300	Commo
Saturday, May 18 200		1,000		Light w
				Choice
Total for week18,282	122	17,897	12,295 12,725 19,601 5,073	Good
Previous week19,985	831	28,672	12,120	Mediu
Year ago	991	21,450	5 079	Comme
Total for week	222	00,010	10 1000	Butcher C
Receipts at Unicago for t	he year	to May	13, 1922,	Heifers,
with comparisons:	10	22.	1921.	Cows, c
Cattle	1.05	4.222	1.027.096	Bulls, E
Calves	31	9.822	315,269	Canners at
Hogs	3,00	5,819	3,248,923	Cows a
Sheep	1,30	8,628	1,717,630	Canner
Total receipts of hogs at				Veal Calve
aveni accepto or nogo m		ek. Year	e to data	
Week ending May 13	EGE	000 1	0,441,000	Light ar
Week ending May 13. Previous week Cor. week, 1921 Cor. week, 1920 Cor. week, 1919 Cor. week, 1918 Cor. week, 1917 Cor. week, 1917 Cor. week, 1916	525	000	.,,	choice
Cor. week. 1921	501	000 1	1,719,000	Heavy 1
Cor. week, 1920	644	,000 1	2.057.000	Feeder Ste
Cor. week, 1919	585	,000 1	3,778,000	Common
Cor. week. 1918	530	,000 1	3,485,000	Common
Cor. week, 1917	428	,000 1	1,805,000	
Cor. week, 1916	550	,000 1	2,573,000	Top
Cor. week, 1916 Cor. week, 1915 Cor. week, 1914	002	,000 1	1,336,000 9,346,000	Bulk of s
				Heavy we
Combined receipts at seve	n points	for wee	k ending	Med. weig
May 13, with comparisons:				Light wei
Car	ttle.	Hogs.	Sheep. 156,000	Med. weig Light wei Light ligh
Week ending May 13173	,000	127,000	156,000	Packing s
Previous week	.000	128,000	163,000	Packing s
1921	,000	383,000	163,000 193,000 126,000	Killing pig
1920169	,000	524,000	120,000	
1919	000	170,000 107,000	183,000	V 1
1918	000	339,000	139,000 103,000	Lambs: (8
1917	000	148,000	133,000	85 lbs. Spring
1915	.000	128,000	$133,000 \\ 127,000$	Culls at
1914	3.000	378,000	202,000	Yearling
				Wethers,
Combined receipts at set May 13, 1922, with compar	ten mar	kets for	year to	Ewes, me
0.111	77.	-	Sheen	Culls ar
Cattle.	He	ogs.	Sheep.	
1922 3, 139,000 1921 3,037,000 1920 3,464,000 1919 3,790,000 1918 4,056,000 1916 2,725,000 1916 2,725,000	0,004	,000	3,298,000 4,075,000	
1921	9,228	000	3,180,000	CHICA
1920	11 505	000	3,496,000	CHICA
1018 4 056 000	11,000	000	3,160,000	
1017 3 940 000	9 956	,000	3,575,000	
1916 2.725.000	10,637	.000	3,547,000	
10152.395,000	8,676	,000	3,561,000	PORK-O

May 1	3,	1922	wi	th	co	m	pa	ri	80	n	8:										
1921 1920 1919 1918 1917 1916				3,13,63,4,63,2	037 164 790 056 249 725	00,0000	00 00 00 00 00 00			1 1	9, 9, 1, 1, 9,	H 55 22 87 50 02 95 63 67	4, 9, 5, 7, 0, 7,	0000000	000000000000000000000000000000000000000				3433333	141	heep. 298,000 075,000 180,000 196,000 60,000 575,000 547,000
Chic May 1				s'	ho	g	8	la	u	gh	te	r	1	fe	r	W	6	el	ž.		ending
Armou Anglo- Swift Hamis Morris Wilson Boyd-l Weste Rober Miller Indepe Brenn Wm. Others	An & an	& Conerica Co. d Co. & Co. & Co. aham Pack & Oa Har lent I Pack vies	cing ke t	ins C	2 (0.	00.															9,800 6,800 14,900 6,500 9,900 12,000 5,200 16,000 4,000 5,800 1,500 1,500
Previo Year Two Three	ag yes	wee o	go						• •							 					118,300 115,700 100,000 151,100 121,300

WEEK	AVEB	AGE PRIC	E OF	LIVEST	JUK.
*		Cattle	Hogs	. Sheep.	Lambs.

		Cattle.	Hogs.	Sheep.	Lambs.
Week ending	May	13\$ 8.30	\$10.55	\$ 8.25	\$13.85

Previous week 8.2	5 10.25	9.00	14.85
Cor. week, 1921 8.4		6.90	11.25
Cor. week, 1920 12.3		12.90	18.40
Cor. week, 1919 15.1		11.85	16.65
Cor. week, 1918 15.7		14.50	17.90
Cor. week, 1917 12.1		13.60	17.90
Cor. week, 1916 9.4		8.85	11.25
Cor. week, 1915 8.3		7.25	10.25
Cor. week, 1914 8.5		5.85	8.50
Cor. week, 1913 8.0		5.75	7.00
Cor. week, 1912 8.0		5.65	7.00
Cor, week, 1911 5.9	5 5.91	4.75	6.60
Average, 1911-1921\$10.2			\$12.05
Prices at Chicago, Thursday	, May 18,	1922:	
CATTL	E.		
Beef Steers:			
Med. and heavy wt. (1,100			
Choice and prime			@ 9.20
Good			@ 8.75
Medium			@ 8.25
Common		7.10	@ 7.75
Light weight (1,100 lbs. d			
Choice and prime			9.35
Good			@ 8.85
Medium			@ 8.35
Common		1.H	0@ 7.75
Butcher Cattle:			
Heifers, common choice		5.90	0@ 8.50
Cows, common choice		4.8	
Bulls, Bologna and beef		4.50	0@ 6.50
Canners and Cutters:			
Cows and beifers		3.63	5@ 4.8
Canner steers		4.73	5@ 5.78
Veal Calves:			
Light and med. weight, me	ed, good a	nd	
choice			0@10.00
Heavy weight, common-che	ice	4.2	5@ 8.00
Feeder Steers:			
Common-choice (1,000 lbs.	2222	0.01	5@ 7.85
Common-choice (750-1.000			
	3	0.2	1.00
Top		\$11.00	
Bulk of sales			
Heavy weight (250 lbs. up),	med chai	ce 10.0	5@10.0
Med weight (200.950 the)	med, choi	00 10.0	5@11.0

Bulk of sales 10.55@11.00 Heavy weight (250 lbs. up), med. choice 10.65@10.90 Med. weight (200-250 lbs.), med. choice 10.55@11.00 Light weight (150-200 lbs.), com. choice 10.95@11.00 Light lights (130-150 lbs.), com. choice 10.25@10.85 Packing sows (250 lbs. up), smooth... 9.70@10.15 Packing sows (200 lbs. up), rough... 9.40@ 9.75 Killing pigs (130 lbs. down), med. choice 9.25@10.25 SHEEP. SHEEP.

	P.J	ALLENSE .		
Lambs: (84 lbs.	down)	, medium	prime. \$10	0.50@12.75
85 lbs. up				
Spring lambs .				
Culls and com	mon			7.00@10.00
Yearling wethers				8.25@10.25
Wethers, mediun	a prim	ie		6.75@ 8.50
Ewes, medium c	hoice			4.00@ 7.25
Culls and comm	on			2.00@4.00

CHICAGO PROVISION MARKET

resuge of	4 22000,		
SATURDAY, M	IAY 13,	1922.	
Open.	High.	Low.	Close.
PORK-(Per bbl.)-			
May	8	8	\$22.70
LARD-(Per 100 lbs.)			
May	11.30	11.30	11.30
July 11.50	11.52 1/2	11.50	11.50
Sept	11.77 1/2	11.70	$11.72\frac{1}{2}$
RIBS-(Boxed 25c more than	n loose)-		
May			12.521/
July			11.90
Sept			11.90
MONDAY, M.	AY 15, 19	22.	
Open.	High.	Low.	Close.
PORK-(Per bbl.)-			
May			22.70
LARD(Per 100 lbs)			
May	11.40	11.35	11.40
July 11.55	11.621/2	11.55	11.621/
Sept 11.80	11.87 1/2	11.77%	11.87
RIBS-(Boxed 25c more tha	n loose)-		
May 12.55	12.55	12.55	12.55
July 12.00	12,00	11.95	11.973
Sept 11.971	11.971/2	11.95	11.95
TUESDAY, M	AY 16, 1	922.	
Open.	High.	Low.	Close.
PORK-(Per bbl.)-			
May			22.95

DRYERS AND CONTINUOUS PRESSES



For Tankage, Blood, Bone Fertilizer, all Animal and Vegetable Matter. Installed in the largest packing-houses, fertilizer and fish reduction plants in the world. Material carried in stock for standard

Send for Catalogue T. B.

American Process Co.

"WANCO", a mighty factor in the solution of Rendering Problems

C. H. A. WANNENWETSCH & CO., 560 William Street, BUFFALO, N. Y.

11.47%	11.421/	11.4244
11.6736	11.60	11.60
		11.85
	22104/2	22100
12.75	19.75	12.75
		12.0214
		12.02 %
	-	12.00
AY 17,	1922.	
High.	Low.	Close.
		22.95
*****	*****	
		11.40
	11 501/	11.60
11.80	11.60	$11.82\frac{1}{2}$
100se)—	40.00	10.00
		12.80
		11.95
		11.95
AY 18.	1922.	
	Low	Close.
AAIgu.	23011.	Caobe.
		22.95
		22.00
11 491/	11 971/	11.40
		11.621/6
11.87 1/2	11.80	11.85
100se)-		
		12.80
$12.02\frac{1}{2}$		12.021/2
12.00	12.00	12.00
19, 19	22.	Close
		Close.
19, 19 High.	22. Low.	
19, 19	22.	Close. 22,95
Y 19, 19 High.	122. Low.	22.95
19, 19 High.	11,371/2	22.95 11.49
11.40	11.37 1/2	22.95 11.49 11.60
11.40 11.65 11.874	11.37 1/2 11.60 11.80	22.95 11.49
11.40 11.65 11.874	11.37 1/2 11.60 11.80	22.95 11.49 11.60
11.40 11.65 11.87½ an loose)	11.37 1/2 11.60 11.80	22.95 11.40 11.60 11.82½
11.40 11.65 11.87½ 11.00se)	11.37½ 11.60 11.80	22.95 11.40 11.60 11.82½ 12.80
11.40 11.65 11.87½ an loose)	11.37 1/2 11.60 11.80	22.95 11.40 11.60 11.82½
	11.67½ 11.95 100se) — 12.75 12.02½ 12.02½ 12.02½ 12.00 11.62½ 11.85 11.85 11.85 11.85 11.85 11.85 11.85 11.85 11.85	11.67 ½ 11.60 11.95 1 1.82 ½ 100se) — 12.75 12.02 ½ 12.02 ½ 12.00 12.00 12.00 12.00 1XY 17, 1022. High. Low. 11.62 ½ 11.52 ½ 11.85 11.75 100se) — 12.80 12.80 12.80 12.80 11.42 ½ 11.37 ½ 11.65 11.60 11.87 ½ 11.87 ½ 11.87 ½ 11.87 ½ 11.88 100se) —

CHICAGO RETAIL FRESH MEATS (Corrected weekly by C. W. Kaiser, Sec'y, United Master Butchers' Ass'n of Chicago,)

Beef.	
Rib roast, heavy end. Ne. Rib roast, light end. 2 Rib roast, light end. 3 Chucks roast 2 Staks, sizioin, first cut. 4 Steaks, sizioin, first cut. 4 Steaks, porterhouse 5 Steaks, flank 3 Beef stew, chuck. 1 Corned priskets, boneless. 2 Corned plates 2 Corned rumps, boneless. 2	22 20 26 22 15 12 25 25 23 35 30 42 32 25 15 16 16 16
Lamb.	

	Good.	Com
Hindouarters	42	35
Legs	45	38
Stews	20	15
Chops, shoulder	30	25
Chops, rib and loin	50	40
	00	40
Mutton.		
Legs	22	
Stew	15	
Shoulders	20	
Chops, rib and loin	35	
	00	
Pork.		
Loins, whole, 8@10 avg		@30
Loins, whole, 10@12 avg		@28
Loins, whole, 12 to 14		@26
Loins, whole, 14 and over		@24
Chops		@35
Shoulders		@18
Butts		@22
		@15
		@15
Hocks		@10
Leaf lard, unrendered		@In
Veal.		
Hindquarters	98	@30
Forequarters	191	
Legs		² @35
Breasts Shoulders	10	@23
		@42
Cutlets		
Rib and loin chops		@35

Shoule																														@23
Cutlet																														@42
Rib a	nd		le	i	n	,	cl	b	D	pi	5 .					×														@35
									1	В	U	ı		h	e	2	1	S	•	()	f	f	a	ı					
Suet							٠																				0	0	۰	@ 3
Shop	fa	t	٠,																	۰		٠	٠							@ 1
Bones	š.	p	eı		1	10	X)		11	36	١.																		@2
Calf	sk	ir	18																	Ì,								×		@10
Kips													 																	@ 8
Deace	ns												 							 ,										@10

CURING MATERIALS.

	Sacks
Refined saltpetre, gran 7%	7% 8%
Crystals 8%	8%
Double refined nitrate of soda, f. o. b.	
N. Y. & S. F., carloads 41/2	434
Less than carloads, granulated 4%	486
Crystals 5%	4% 4% 5%
Kegs, 100@130 lbs., lc more.	- 10
Boric acid, crystals to powdered, lbs111/2	121/2
Borax, crystals to powdered	71/4
Sugar-	1.74
	@ 41/4
Raw, sugar, 96 basis	@ 31/2
Second sugar, 90 basis	@ 373
Syrup, testing 63 to 65 combined sucrose	000
and invert	@20
Standard, granulated, f. o. b. refinery	
(less 2 per cent)	@ 5.50
Plantation, granulated, f. o. b. New	
Orleans (less 2 per cent)	@ 5.30
White clarified, f. o. b., New Or-	
leans (net)	@ 5
Yellow clarified, f. o. b., New Or-	-
leans (net)	@ 4%
Salt-	- 10
Granulated, car lots, per ton, f. o. b., Ch	ni-

Granulated, car lots, per ton, f. o. b., Chicago, bulk
Medium, car lots, per ton, f. o. b., Chicago, 10.00
bulk
Rock, car lots, per ton, f. o. b., Chicago. 8.50

CHICAGO MARKET PRICES Clear bellies, 25@30 lbs. @13% Rib bellies, 25@30 lbs. @13% Rib hellies, 25@30 lbs. @13%

CHICAGO) WA	RKEI PRICES	Rib bellies, 20@25 lbs. @1378 Rib bellies, 25@30 lbs. @1334
WHOLESALE FRESH M	EATS.	DOMESTIC SAUSAGE. Fancy pork sausage, in 1-lb. cartons @22	Fat backs, 10@12 lbs. @ 9%, Fat backs, 12@14 lbs. @ 9%, Fat backs, 14@16 lbs. @ 110 Regular plates @ 11
Carcass Beef. Week ending	Cor. week, 1921.	Fancy pork sausage, in 1-lb. cartons. ©22 Country style sausage, fresh, in link. @15 Country style sausage, fresh, in bulk. @14 Country style sausage, smoked. @17 Mixed sausage, fresh @13 Frankfurts in pork casings. @13 Frankfurts in sheep casings. @15 Bologna in beef bungs, choice. @14 Bologna in beef middles, choice. @18½ Bologna in cloth, paraffined, choice. @14 Liver sausage in hog bungs. @16 Liver sausage in beef rounds. @10 Lived Sausage in beef rounds. @11 Liver sausage in beef rounds. @110 Liver sausage in beef rounds. @110 Liver sausage in beef rounds. @110 Liver sausage in beef rounds. @111	Dutts @ 872
May 20. 15 @16 Good native steers	17 @18 16 @17	Mixed sausage, fresh	WHOLESALE SMOKED MEATS.
	14 @16 13 @16 10 @15	Frankforts in sheep casings	Regular hams, fancy, 14@16 lbs
Cows	@23 @12	Bologna in beef bungs, choice.	Picnics, 6@8 lbs
Beef Cuts.	@30	Head cheese 011 New England luncheon specialty 022 Liberty luncheon specialty 016 Minced luncheon specialty 016 Tongue sausage 017	Regular hams, fancy, 14@16 lbs.
Steer Loins, No. 1	@29 @38	New England luncheon specialty.	Standard bacon, strips, 6@7 lbs
Steer Short Loins, No. 2 @34 Steer Loin Ends (hips) @24 Steer Loin Ends, No. 2 @23	@36 @25 @24	Blood sausage G12 Polish sausage G14 Souse G14 G	Cooked hams choice skinless surplus for
Cow Loins	19 @24 29 @32	DRY SAUSAGE.	Picnics, skin on, surplus fat off, smoked @28
Beef Cuts Stor Loins, No. 1. @29	@21 @20	Cervelat, choice, in hog bungs	Picnics, skinned, surplus fat off, smoked. @29 Loin roll
Cow Ribs, No. 1	@19 @17 @15	Former Cervelat	FERTILIZERS.
Steer Rounds, No. 1	@17 @16	B. C. Salami, choice	Per unit. Section Se
Steer Chucks, No. 1	@11 @10 14 @15	B. C. salami, new condition	Concentrated tankage, ground
Cow Chucks 7 @ 8 Steer Plates @ 8 Medium Plates @ 7½	@ 9 @ 8 @ 6	Mortadella new condition @90	Concentrated tankage, ground 2.75@ 3.09 Hoofmeal 2.00@ 2.10 Ground tankage, 10 to 11% 2.75@ 3.09 Ground tankage, 6½ to 9% 2.25@ 2.50 Crushed and unground tankage 2.00@ 2.50 Ground raw bone, per ton 33.00@32.00 Ground steam bone, per ton 23.00@25.00 Unground steamed bone 16.00@18.00 Unground bone tankage 10.00@12.00
Briskets, No. 1	@20 @14	Capricola	Ground steam bone, per ton
Steer Navel Ends. @ 5 Cow Navel Ends. 4 @ 5½ Fore Shanks @ 4½	@ 5 @ 41/4 @ 7 @ 6	Virginia style hams@43 SAUSAGE IN OIL.	
Hind Shanks	@ 6 @28 @55	Bologna style sausage in beef rounds— Small tins, 2 to crate	HORNS, HOOFS AND BONES. Per Ton.
Strip Loins, No. 2	@45 @22		Per Ton. No. 1 horns. \$225.00@250.00 No. 2 horns. 175.00@2200.00 No. 3 horns. 75.00@2200.00 Hoofs, black 22.00@ 24.00 Hoofs, stripped 35.00@40.00 Hoofs, white 45.00@60.00 Grinding hoofs 20.00@22.00 Round shin bones, heavies 100.00@2110.00 Round shin bones, light 80.00@90.00 Flat shin bones, heavies 90.00@95.00 Flat shin bones, heavies 90.00@95.00 Thigh bones, heavies 90.00@95.00 Thigh bones, heavies 90.00@95.00 Thigh bones, heavies 90.00@95.00 Thigh bones, heavies 90.00@95.00
Sirloin Butts, No. 1	@40 @32 @28	Small tins, 2 to crate 7.00 Large tins, 1 to crate 8.00 Frankfurt style sausage in pork casings—	Hoofs, black 22.00@ 24.00 Hoofs, stripped 35.00@ 40.00
Beef Tenderloins, No. 1 @75 Beef Tenderloins, No. 2 @65	@75 @65	Small tins, 2 to crate	Hoors, white 45.00@ 59.00 Grinding hoofs 20.00@ 22.00 Round shin hones, heavies 100.00@110.00
Rump Butts @18 Flank Steaks @20 Boneless Chucks @9 Shoulder Clods @15 Hanging Tenderloins @ 8	@25 @1014	Small tins, 2 to crate	Round shin bones, light
Shoulder Clods @15 Hanging Tenderloins @ 8 Trimmings @ 8	@18 @14 9 @13	SAUSAGE CASINGS.	Thigh bones, heavies
Beef Product.	9 (913	Beef rounds, domestic, per set	Skulls, jaws and knuckles28.00@30.00 Note—Foregoing horns, hoofs and bones must be assorted, free from grease, hard and clean.
Brains, per lb. 6 9 Hearts 3 2 5 Tongues 28 630	6 @ 9 3 @ 7 @28	(F. O. B. CHICAGO.) Beef rounds, domestic, per set	LARD (Unrefined).
Sweetbreads	27 @30 6 @ 9	Beef bungs, No. 2, per piece	Prime, steam, cash. @11.40 Prime, steam, loose. @10.82
Sweetbreads 23 228 228 228 228 228 238 248	@ 4 @ 5 8½@11	Beef bladders, small, per doz	Leaf, raw
Kidneys, per lb10 @101/2 Veal.	@11	Beef bladders, large, per doz. 1.80	LARD (Refined).
Choice Carcass	16 @17 10 @15	Hog middles, without cap, per set. .16 Hog bungs, export .23 Hog bungs, large .12½ Hog bungs, medium .08	Pure Lard, kettle rendered, per lb, tcs @14% Pure Lard @13% Compound @12%
Good Saddles 20 @24 Good Backs 8 @12 Medium Backs 6 @ 8	20 @27 8 @14 7 @ 8		Compound @12% Barrels, %c over tierces; half barrels, %c over tierces; tubs and pails, 10 to 80 lbs., %c to 1c over tierces.
Veal Product.		Hog stomachs, per piece	OLEO OIL AND STEARINE.
Brains, each 6 8 Sweetbreads 50 255 Calf Livers 26 28	7 @10 36 @40 28 @33	VINEGAR PICKLED PRODUCTS.	Oleo oil, extra
Lamb.			Oleo 501, extra. 95, 2010 Oleo 5tock 854, 20 9 Prime No. 2, oleo 510. 84, 20 9 Prime No. 2, oleo 500. 74, 20 8 No. 3 oleo 510. 74, 20 8 Prime oleo 5tearine, edible. 84, 20 9 No. 2 oleo 5tearine, edible. 74, 20 74
Choice Lambs @30 Medium Lambs @29 Choice Saddles @33	@27 @26 @33	Regular tripe, 200-lb. bbl. 14.00 Honeycomb tripe, 200-lb. bbl. 16.00 Pocket honeycomb tripe, 200-lb. bbl. 18.00 Pork feet, 200-lb. barrel. 16.00 Pork tongues, 200-lb. barrel. 45.00 Lamb tongues, long cut, 200-lb. bbl. 33.00	Prime oleo stearine, edible
Choice Fores	@31 @21 @18	Fork tongues, 200-1b, barrel	TALLOWS AND GREASES.
Lamb Fries, per lb22 @24 Lamb Tongues, each @18	@30 @18	CANNED MEATS.	Edible tallow 7½ @ 7½ Choice country tallow 6¾ @ 7 Packers, prime, loose tallow 6½ @ 6%
Lamb Kidneys, per lb @25 Mutton.	25 @28	No. ½, No. 1. No. 2. No. 6. Corned beef\$1.75 \$ 2.35 \$ 3.25 \$15.00 Roast beef2.35 4.00 15.00	Edible fallow 74, 46 7 17 Choice country tailow. 63, 67 7 Packers, prime, loose tailow. 65, 66 84, 7 Packers, No. 1 loose tailow. 6 6 6 64, 7 Packers, No. 2 tailow. 5 6 6 54, 7 Packers, No. 2 tailow. 5 6 6 74, 7 White, choice grease. 74, 67 74, 7 White, choice grease. 74, 67 74, 7 White, choice grease 5 7 15 per cent acid. 54, 67 54, 7 Yellow grease, 15 to 30 per cent acid. 54, 67 54, 8 Brown grease. 15 to 30 per cent acid. 54, 67 54, 8 Cracklinss. 54, 68 54,
Heavy Sheep @10 Light Sheep @15 Heavy Saddles @12	@14 @16	Sliced dried beef 3.10 4.90	White, "A" grease
Light Saddles	@18 @24 @10	Ox tongue, whole	Brown grease
Light Fores @10 Mutton Legs @22 Mutton Loins @25	@12 @27 @25	Hamburger steaks with onions 1.50 2.35 4.25 Vienna style sausage 1.15 2.25 4.15	Cracklings 54 0 54 Bone, naphtba extracted 44 44 House 5 0 54
Mutton Stew @ 7 Sheep Tongues, each @ 8	@ 7 @18	Veal loaf, medium size. 2.00 Chili con carne with, or	VEGETABLE OILS.
Sheep Heads, each	@10		Cottonseed oil—White, deodorized, in bbis.12 ½ @13 Yellow, deodorized, in bbis
Dressed Hogs @15 Pork Loins, 8@10 lbs. avg @24 Leaf Lard @11½	@14 @22	BARRELED PORK AND BEEF. Mess pork, regular	P. S. Y., soap grade, loosenom. 10% @11 Soap stock, bbls., concen., 65%, f. o. b. Texas
Tenderloin	@ 91/2 @ 52 @ 9	Family back pork, 20 to 34 pieces 26,00 Family back pork, 35 to 45 pieces 27,00 Clear pork back, 40 to 50 pieces 22,00 Clear pork back, 50 to 60 pieces 21,00 Clear plate pork, 20 to 35 pieces 20,50 Clear plate pork, 35 to 45 pieces 20,00 Pean pork 19,50 Brisket pork 20,00 Factor pork 19,50 Brisket pork 14,00 Factor p	Texas
Butts @16 Hocks @15 Trimmings @10½ Extra lean trimmings &616	@14 @13 @ 61/2	Clear pork back, 50 to 60 pieces	Soya bean oll, seller tank, f. o. b., coast. 10½@10% Cocoanut oll, seller tank, f. o. b. coast. 7½@ 7%
Sponts @ 5	@12 ⁷¹ @ 8 @ 4¼, @ 4 6 @ 9 @ 12	Pean pork 19,50 Brisket pork 20,00	ANIMAL OILS.
Pigs' Feet	@ 4	Extra plate beef, 200-lb. barrels	Prime lard oil
Blade Bones		BUTTERINE. 1 to 6, natural color, solids, f. o. b. Chi-	Extra No. 1 lard oil. 9 @ 9½ No. 1 lard oil. 8½@ 9
5iade Meat @11½ Cheek Meat @ 9 Hog Livers, per lb @ 5 Neck Bones @ 3½ Skinned Shoulders @ 14 Pork Hearts @ 44	4 @ 6	Cartons, rolls or prints, 1 b	Pure neatsfoot oil
Pork Kidneys per th @ 5	4 @ 6 3 @ 12 @ 5 @ 4	Shortenings, 30@60 lb. tubs	Prime lard oil. 13%@13% Extra winter strained lard oil. 10%@11% Extra lard oil. 10 @104/ Extra No. 1 lard oil. 9 @ 94/ No. 1 lard oil. 9 % 99/ No. 2 lard oil. 84/@ 88/ Pure neatsfoot oil. 174/@117% Extra neatsfoot oil. 94/@10 No. 1 neatsfoot oil. 94/@10 No. 1 neatsfoot oil. 94/@10 Acidless tallow oil. 94/@ 94/
Slip Bones @ 9 Tail Rones @ 8	@12 @ 9 @ 9 @12	DRY SALT MEATS.	COOPERAGE.
Brains @10 Back fat @1246	@12	Extra short ribs	Ash pork barrels, black from hoops1.30 @1.3214 Oak pork barrels, black from hoops1.4214 @1.45 Ash pork barrels, galv., from hoops1.4714 @1.50
Hams 429 Calas 415 Bellies 424	@23 @13 @17	Short clear middles, 60 avg @14 Clear bellies, 14@16 bs. @14 Clear bellies, 18@20 bs. 14 @15 Clear bellies, 20@25 bs. @13%	Red oak lard tierces 1.72½ @1.75 White oak lard tierces 1.87½ @1.90 White oak bam tierces @2.20
	@11	(£13/8	water our name tierces

Retail Section

Kansas Retailers Tackle Vital Problems

The chain store, sanitation in the butcher shop, selling more meat, and other vital retailer problems were discussed at the tenth annual convention of the Kansas Retail Butchers Association held at the Chamber of Commerce, Kansas City, Kan., on May 9, 10, 11, 1922. There was provided a program that exceeded any previous one in every respect, for the speakers, many of whom were widely know specialists, tackled vital retailer problems of the present time.

Among the speakers were C. W. Myers of Morris & Company, who spoke on advertising; J. C. Swift, who told of the relation of the livestock commission business to the retail butcher; Dr. S. J. Crumbine, chief of the pure food department of Kansas, who spoke on a state license law for retail butchers, and E. B. Moon, assistant secretary of the National Association of Meat Councils, whose address was on the subject of "Keeping Meat vs. Selling Meat." Other subjects discussed were the chain store problem, sanitation in the butcher shop, Kansas City's experiment with a municipal meat market, and the question as to whether there are too many meat markets.

question as to whether there are too many meat markets.

President A. L. Pullins of Council Grove, Kans., presided with great success, and the easy way in which the convention program went along was largely due to the excellent work of the committees, as follows: Entertainment, P. B. Diltz, B. A. Jackson, Albert Baker, Joe Dear, and Otto Anderson; arrangements, I. A. Horstman, Prank Braun, Clarence Merrill, Otto Segelbrecht, H. T. Ferguson, L. F. Fairchild, and C. L. Pickell.

These gentlemen together with the officers of the association, President Pullins, Vice-presidents I. N. Hershey of Olathe, Bruce Maguire of Fort Scott, C. C. Whitten of Hill City, and especially Secretary-Treasurer Fred Garland of Wellington, strained every nerve to put the convention over in good style, and the members acknowledged their efforts in appropriate resolutions.

appropriate resolutions.

Among other resolutions passed was one suggesting the appointment of a committee of three from the Kansas Retail Butchers Association to meet a similar committee from the Kansas Grocers Association, with the idea of uniting their efforts in educational work.

The luncheon on Thursday given by the five larger packers of Kansas City to all members of the association was a great success and several good addresses on practical subjects were listened to.

One of the most stimulating talks was

One of the most stimulating talks was given by E. B. Moon, assistant secretary of the National Association of Meat Councils. Mr. Moon discussed the very practical subject of "Keeping Meat vs. Selling Meat." He said in part:

Keeping or Selling Meat?

"Too many retailers are inclined to keep store, and too many meat retailers keep meat and wait for the people to come in and ask for what they want. There was a time when this was the correct method to use. But the customer of today goes to the market or the store that suggests wants, creates desires, merchandises in harmony with the wants and needs of its customers, and renders service.

"The time for keeping meat is past and retailers must adopt modern methods, which have proved acceptable in other lines. They must find out what their cus-

tomers want by surveys of their sales territory, and they must tell their customer what he wants through the printed word, the display of goods attractively, through the use of the power of the mailing list, through an accounting system, by learning how, what, and when to push products. Advertising must be specific and it must be aimed at the special problem of the retailer. All this will widen the sales outlet.

"Retailers must be satisfied not with selling ribs and loins, but forequarter cuts of veal, mutton, and pork, and in this way the sales will be so well balanced that the whole carcass will be sold easily, thus reducing waste. In this way the retailer can serve better and more economically.

can serve better and more economically.

"The retailer must push seasonable goods. When the weather is warm he should send letters to customers to 1:t them know that he has on hand cold meats and sausages that the housewife wants to serve on the table and is too often buying from the delicatessen. The delicatessen would not be in business if the retailer had served his customers as they want to be served."

to be served."

Mr. Moon also emphasized as in former talks the importance of the poster service as an advertising medium. As a result of the interest shown in this service several members have already sent in their subscriptions.

The convention decided to hold the next convention at El Dorado, Kans., and before the convention adjourned it elected the following officers: President, F. Brown of El Dorado; and Fred C. Garland, secretary and treasurer, who is re-elected.

RETAIL PRICE CHANGES.

During the month from March 15, 1922, to April 15, 1922, the following articles on which monthly prices are secured decreased in price as follows: Cheese, 3 per cent; lard, 2 per cent; butter and oleomargarine, 1 per cent. The price of nut margarine and strictly fresh eggs decreased less than five-tenths of 1 per cent. Some articles increased in price during the month as follows: Pork chops, 5 per cent; lamb, 3 per cent; round steak, bacon and ham, 2 per cent; sirloin steak, rib roast, chuck roast and crisco, 1 per cent. Prices remained unchanged for plate beef and hens.

For the year period, April 15, 1921, to April 15, 1922, the percentage decrease in all articles of food combined, was 9 per cent. Certain articles decreased in price during the year as follows: Butter, 19 per cent; plate beef, 16 per cent; fresh milk and oleomargarine, 15 per cent; cheese, 14 per cent; chuck roast, 13 per cent; round steak and hens, 12 per cent; pork chops and bacon, 11 per cent; rib roast, 10 per cent; sirloin steak, 9 per cent; nut margarine, lard and strictly flesh eggs, 8 per cent; crisco, 4 per cent. The prices of the other articles increased as follows: Lamb, 11 per cent; ham, 3 per cent.

For the 9-year period, April 15, 1913, to April 15, 1922, the increase in all articles of food, combined, was 42 per cent. The articles named showed increases as follows: Ham and lamb, 91 per cent; hens, 70 per cent; pork chops, 53 per cent; bacon, 48 per cent; cheese, 46 per cent; sirloin steak and fresh milk, 43 per cent; round steak, 41 per cent; rib roast, 37 per cent; strictly fresh eggs, 26 per cent; chuck roast, 20 per cent; butter, 12 per cent; plate beef and lard, 7 per cent.

CONVENTION CLUBS FOR BIG MEET.

The idea of forming special convention clubs of retail meat dealers in different cities for the purpose of making and carrying through in an efficient way plans for getting the members of the United Master Butchers to Milwaukee for the annual convention is succeeding well. Already several such clubs have been organized and among them is the Toledo-Milwaukee Convention Club. Railroad accommodation is being arranged for, and as soon as the schedule has been worked out hotels will be selected and notice given to all the members.

ST. LOUIS MEN FOR CONVENTION.

The St. Louis Retail Meat Dealers' Association at their recent meeting enthusiastically decided to attend the annual convention of the United Master Butchers at Milwaukee. To further the plan for a big convention the meeting adopted unanimously a motion to form a St. Louis-Milwaukee Convention club, and President Deichmann prevailed upon former President Michael Kelly, Jr., of the United Master Butchers of America to act as the chairman of the club. Plans for taking the St. Louis delegation to Milwaukee by special cars are already being considered.

ROCHESTER RETAILERS CELEBRATE.

The annual banquet of the Rochester Master Butchers was held recently in the Powers Hotel, Rochester, N. Y., at which President William Stickel presided. The principal address was delivered by James G. Comerford of the Meat Council of Rochester. The entertainment features of the evening included an act of jokes and songs by Roy Miller and a moving picture entitled "From Ranch to Table." Among the guests from other cities were President Michael Koegler of the Buffalo Master Butchers and Mrs. Koegler.

LOCAL AND PERSONAL.

Erickson's meat market, Hoquiam, Wash., has been sold.

Bayless Rutherford has bought the Star meat market at Troy, N. Y.

Ward Eastling, Stevens Point, Wis., has taken over the meat market there.

Wm. Schneider, Sandoval, Ill., has bought a meat market at that place.

McDowell Brothers' meat market, Midway, Pa., was recently damaged by fire.

George Huber has purchased the meat market of Alex. Palenzus at Clinton, Wis. Joe Toczek has bought a half interest in the Fillaus meat market, Lesterville, S. D.

A. A. Mason, Longmont, Colo., has bought the K. & K. market, at 455 Main street.

Thoraldsen & Glanders, Trade Lake, Wis., will open the Norine meat market shortly.

The Longacre Meat Supply Co., New York City, has been incorporated with a capital of \$10,000. The attorney is D. Weiss, 600 West 178th street.

Ralph Moore has bought the Palace meat market, 117 Main street, from S. Greenberg and A. Meizlick has opened a new meat market on Idaho street, Farrell, Pa. Ben Schmidt will open a meat market at Ingleside, Ill.

J. F. Huss has opened a meat market at Hampton, Minn.

Arthur Puff will open a new meat market at Olivia, Minn.

Charles Buck has disposed of his meat market at Calamus, Ia.

William C. Zoellner has opened a meat market at Algoma, Wis. C. E. Mitchell will open a meat market

at Maricopa, Cal., shortly.

Jas. Snerda, Tekamah, Neb., has bought

the Tumberg meat market.

D. W. Booth has taken over the Star meat market, Sac City, Ia. Walter A. Dietz has bought the City

Walter A. Dietz has bought the City heat market at Mora, Minn. John Hofman has engaged in the meat

husiness at Clay Center, Kans.

L. Cary has sold his meat market at Welcome, Minn., to Geo. Scherer.

Tom Sims has engaged in the meat and grocery business at Ragan, Nebr.

John Vanderloon is about to engage in

the meat business at Ralston, Neb.

Lee Waste will open a meat market at

617 East Fifth avenue, Antigo, Wis. Hiram Watson is erecting a building for a meat market at Red Wing, Minn.

Ben Schmidt has sold out his meat market at Harvard, Ill., to R. T. Carroll.

The Sanitary market, 409 South Second street, Clinton, Ia., will open shortly.

A. W. Lewis has taken over the meat market of M. E. Real, Gold Hill, Ore.

Coxshall's meat market, Beaver Dam, Wis., has sold out to John Borchard.

Marty & Davis have purchased the Columbus meat market, Columbus, Nebr.

Ruddy & Tylie have sold their meat market at Auburn, Neb., to Chas. Wills.

Jesse Woolever is erecting a new meat market on Main street, Steuben, Wis.

C. J. Greene has opened a meat market on West Monroe street, Decatur, Ind.

A. Bennes & J. H. Spainof will open a meat market at Churches Ferry, N. D.

The City meat market, Algoma, Wis., is planning to build an extensive addition.

J. E. Boyd and Elmer Johnson have opened a meat market at Springdale, Ark. Larson & Baumgartner have opened a new meat market at East Ellsworth, Wis.

The Valparaiso meat market, Valparaiso, Neb., is constructing a new building. John B. Maier opened a new meat market in the Funder building, Norwalk, Calif.

Richard Jarvis has bought the meat market of Thomas Tower, Lake Worth, Florida.

Loveless & Waggoner has bought the meat market of Haley & Carinne, Sullivan, Ill.

Jacob Stuckel has bought the meat market of Fred Kaiser, Pulaski street, Lincoln, Ill.

Vegel Bros. will shortly open a meat market at Third and Creve streets, La Salle, Ill.

Bopp & Schwartz, East Franklin street, Kenton, O., are going to install a meat market.

George L. Tisue, Butte, Neb., has purchased the Butte meat market from M. A. Rorrall.

Billy Hopley, Hancock, Ia., has purchased the meat market of Peter R. Jorgenson.

Fred Kaiser, Lincoln, Ill., has sold his meat market on Pulaski street to Earl Otto who will be assisted by Fred C. Wilmert.

Wm. Kinde has sold his interest in the meat business at Caro, Mich., to Frank Kinde and Bert Putman.

Reduce your delivery costs

by using durable, sanitary

Wagon and Truck Baskets

Easily cleaned and good for hundreds of trips.

Write for prices

ANDERSON BOX & BASKET CO.

Incorporate

Henderson, Kv.

The Zoeckler meat market, Main street, Liverpool, O., suffered a small loss by fire recently.

Albert E. Holmberg has purchased the meat business of Roy Jaques, Cadillac, Michigan.

John Rezac, St. Marys, Kans., has sold his meat business to C. D. Marchette of Osage City.

Byers & Son have bought the meat market of C. J. Hunn, High and Arch streets, Chillicothe, O.

T. Peck and P. Swenson, Blackfoot, Ida., have purchased the Pacific market from Wm. Twitchell.

Chris Jensen and Chris Anderson have beught the J. G. Bridenstine meat market at Audubon, Ia.

F. Wilson & Son have succeeded to the meat business of Lindstrom & Wilson, Marquette, Mich.

C. C. Cammauf has sold his meat market on East King street, Lancaster, Pa., to Samuel Keller.

Forest Hangge has bought the meat market of Chas. H. McErlane, Railway street, Austin, Minn.

Thomas and Richard Hanley have taken possession of the Ed. Benish meat market at Prairie du Chien, Wis.

Frank J. Klumpar has taken possession of the J. M. Meeker meat market on East Main street, Independence, Ia.

A. Hazelhuhn, manager of City meat market, Hayward, Wis., is about to begin the erection of a new building.

Harry Kleist, proprietor of the City meat market, Newell, Ia., is figuring on the erection of a new building.

The Bazley Cash meat market, Galesburg, Ill., will shortly move into new quarters at 226 East Main street.

The Buggs & Bullen Co. has purchased the meat business of Grimsrud Bros. at 1728 Banks avenue, Superior, Wis.

Harry A. Reuling has gone into partnership with Fred Reuling in conducting the Reuling market, Port Jervis, N. Y.

A. W. Lindstrom & Son have bought the meat market of Joseph Desjardins, Buff and Third streets, Marquette, Mich.

W. T. Pettit has purchased the Graham meat market, Walnut Ridge, Ark., and changed the name to Pettit meat market.

M. B. Rich of Colorado Springs has purchased the L. C. Wilhite meat market at 116-17 South Topeka avenue, Wichita, Kans.

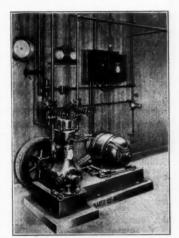
E. J. Kynaston and C. W. Huffman have purchased the meat market at 1305 Broadway, Fort Wayne, Ind., from F. Koppenhoefer.

N. Beck & Son, Menasha, Wis., have bought a site at 322 Commercial street, Menasha, and are planning to erect a new meat market.

H. C. Schweitzer has opened a new meat market at 2909 First avenue, Billings, Mont., which will be known as Schweitzer's market.

Mugele Bros., meats and groceries, 260 Ninth street, San Francisco, Cal., have sold the grocery stock and will continue the meat department.

BAKER SYSTEM



Perfect Refrigeration

That's what you need for the preservation of your meats, butter, fruits, vegetables, etc.

You realize that ice is too expensive—too sloppy, and makes your ice box wet and musty. The uneven temperature results in considerable loss to you through meat trimmings and spoilage.

Install the Baker System Mechanical Refrigeration

Reliable Temperature Cheaper Than Ice Easy to Operate Lasts a Lifetime

With the Baker System you have absolute control of the desired temperature and can cut out the ice bills. A steady and dependable circulation of cold dry air will reduce your loss through spoilage and trimmings—your box will be dry and sanitary.

Write for Bulletin No. 42-D

Baker Ice Machine Co.

The home of East Bluff fresh meats and poultry, Peoria, Ill., conducted by Eugene Torris at 706 Knoxville avenue. has moved to 636 Knoxville avenue.

The meat department of Dean Tatom's grocery and meat store, Pendelton, Ore., is now under new management and will be known as the Quality Shop.

New York Section

W. B. Traynor of the president's office of Swift & Company, Chicago, is in the city this week.

T. E. Wilsoa, president, and G. A. Blair, general traffic manager, Wilson & Company, Chicago, are in New York this week.

Harry M. Cohen, formerly associated with M. Ettlinger & Co., Inc., well-known in the sausage casings trade, has resigned to go into the brokerage business for himself.

The sympathy of the trade is extended to W. S. Price, branch house executive of Morris & Company, Chicago, in the loss of his wife who died suddenly last Sunday evening.

Prices realized on Swift & Company's sales of carcass beef in New York City for the week ending May 13, 1922, on shipments sold out, ranged from 11.00 cents to 15.50 cents per pound, and averaged 14.27 cents per pound.

The contract for the new cold storage building for the Brooklyn Retail Butchers Corporation has been awarded to one of the most prominent contractors in Brooklyn, William Kennedy & Son. Construction work will proceed at once.

I. J. ("Joe") Pupkin, for many years associated with the mess beef department of Wilson & Company at 45th street, died suddenly on May 13th. Mr. Pupkin was one of the oldest employes of Wilson & Company in New York and recently was placed on the pension fund list. He was very well known all over town.

H. A. Tennyson, secretary, Oscar Mayer & Company, Chicago, is spending the week in New York. Mr. Tennyson has big ideas for the development of trade in the East and will probably run down to Boston the latter part of the week to look over the situation in that city.

Following is a report of the New York City Health Department of the number of pounds of meat, fish, poultry and game seized and destroyed in the city of New York during the week ending May 13, 1922: Meat—Manhattan, 60 lbs.; Brooklyn, 473 lbs.; The Bronx, 11 lbs.; total, 544 lbs. Fish—Brooklyn, 36 lbs. Poultry and game—Manhattan, 25 lbs.; Brooklyn, 4 lbs.; total, 29 lbs.

State Secretary William H. Hornidge states that all members of the United Master Butchers, whether delegates or not, with their friends are invited to attend the state convention at Buffalo on June 12-15. Every effort is being made to have as large a delegation from New York as possible, and if 40 people go in a body a special car will be placed at their disposal. The convention will open on Monday morning, June 12th, at 10:00 o'clock. Headquarters are at the Hotel Lafayette. Butchers should make arrangements to attend and hear the reports o'the various committees, which have worked hard for their welfare during the year.

The annual outing of the employes of Conron Bros. Co. was held last week at Byram Lake, near Mount Kisco, and was the biggest and most successful event in the history of the company. More than 200 employes were present with members

of their families and what they did to "Joe" Conron's beefsteaks was a shame! Even "Honey Fitz" was speechless when it was over. There was a big program of athletic contests and Hugh Weston and Harry Chasan, two of the company's popular officials, were presented with gifts by the employes. Aleck Brooks and Jay Fritz had charge of the arrangements, and deserved great credit for the way everything was handled.

When Moses Selig, a wealthy New York butcher, died eight years ago he left the financial affairs of his two little girls to the care of Louis Frank ard A. Buchsbaum. Mr. Frank, taking more than a business interest in the girls and being a retired butcher, decided there should be at least one butcher in the Selig family. He introduced Miss Fanny Selig to Manny Strauss of Strauss & Adler, and played the part of Cupid so well that these two young people announced their engagement last Sunday. Manny Strauss is well known to the trade, having been born and brought up in the meat business, and although ct.ly 21 years old, is one of the best judges of live calves and lambs in the country.

The members of the Ye Olde New York branch, United Master Butchers of America, turned out in large numbers to witness the installation of the officers elected at the last meeting. Frank P. Burck, expresident of the Brooklyn branch and ex-state president, was the installing officer. Albert Rosen, ex-president of the Brooklyn branch agve quite a lengthy talk commending the good work which Mr. Grimm had done as president of Ye Olde New York branch and the sacrifices he had made with regard to his work in the Meat Council. Mr. Rosen presented the new president, George Kramer, with a beautiful bouquet, wishing him all success. Secretary William H. Hornidge gave a history of the work of the retiring president, A. F. Grimm, and the incoming president, George F. Kramer. A vote of thanks was given to the retiring officers for the wonderful results accomplished during their term of office. Washington Heights branch was represented by a large delegation. The new president stated he had many plans for the future, among which was a campaign for new members.

WHOLESALE DRESSED MEAT PRICES.

Wholesale prices of Western dressed fresh meats were quoted by the U. S. Bureau of Markets at Chicago and three Eastern markets on Thursday, May 18, 1922, as follows:

Fresh Beet-				
STEERS:	CHICAGO.	BOSTON.	NEW YORK.	
Choice	\$14.50@15.00	8@	\$14.50@	\$@
Good	14.00@14.50	13.00@13.50	14.00@14.50	13.50@14.00
Medium	13.00@14.00	12.50@13.00	13.00@14.00	13.00@13.50
Common	12.00@13.00	11.50@12.50	12.50@13.00	@
COWS:				
Good	11.50@12.00	11.50@12.00	10.50@11.00	
Medium	10.50@11.00	11.00@11.50	10.00@10.50	11.00@11.50
Common	9.50@10.00	10.00@11.00	9.00@10.00	10.00@10.50
BULLS:				
Good		10.00@	10.50@	@
Medium	@	8.00@ 9.00	9.50@10.00	
Common	8.25@ 8.50	7.00@ 8.00	9.00@ 9.50	8.00@ 8.50
Fresh Veal*-				
Choice	17.00@18.00	@	16.00@18.00	@
Good	14.00@16.00	@	13.00@14.00	@
Medium	14.00@15.00	12.00@14.00	12.00@13.00	14.00@16.00
Common	9.00@11.00	10.00@12.00	10.00@11.00	11.50@14.00
	3.00 20 11.00	10.00 @ 12.00	10.00 @ 11.00	11.50 11.05
Fresh Lamb and Mutton-				
LAMBS:		00.000.000.00	00 00000000	00.00.000.00
Spring	30.00@33.00	30.00@32.00	30.00@33.00	28.00@32.00
Choice	29.00@30.00	29.00@30.00	28.00@30.00	28.00@29.00
Good	28.00@29.00	27.00@28.00	25.00@27.00	26.00@28.00
Medium	26.00@28.00	25.00@27.00	23.00@25.00	25.00 726.00
Common	23.00@26.00	23.00@25.00	20.00@23.00	a
YEARLINGS:	_	-		20.00.001.00
Good	@	@		22.00@24.00
Medium	@	16.00@18.00	@	@
Common	@	14.00@16.00	@	@
	00 00 001 00		40 00000000	15 00 5 10 00
Good	20.00@21.00	15.00@17.00	18.00@20.00 $15.00@17.00$	17.00@19.00 16.00@17.00
Medium	18.00@19.00			
Common	13.50@16.00	12.00@15.00	12.00@15.00	15.00@16.00
Fresh Pork Cuts-				
LOINS:				
8-10 lb. average	23.00@25.00	22.50@23.00	21.00@22.00	22.00@24.00
10-12 lb. average	21.00@23.00	21.00@22.00	20.00@21.00	21.00@23.00
12-14 lb. average	20.00@21.00	19.50@20.50	19.00@20.00	20.00@21.00
14-16 lb. average	18.00@19.00	18,00@19.00	18.00@19.00	19.00@20.00
16 lb. over	17.00@18.00	16.00@18.00	17.00@18.00	16.00@18.00
SHOULDERS:				
Plain	@	@	@	@
Skinned	14.00@14.50	@	15.00@16.00	15.50@16.00
PICNICS:				
4-6 lb. average	13.50@14.00	15.00@15.50		14.00@15.00
6-8 lb. average	13.00@13.50	14.50@15.00	14.00@15.00	@
BUTTS:			_	
Boneless	@		@	@
Boston style	16.50@17.00	@	16.00@19 00	17.50@18.00

^{*}Veal prices include "hide on" at Chicago and New York.

TRIBUTE TO OLD AND NEW.

The last Bulletin of Ye Olde New York Branch, United Master Butchers, has this to say about its past and present presiding officers, written by Wm. H. Hornidge:

ing officers, written by Wm. H. Hornidge:
 "AUGUST F. GRIMM" in butcher circles, is a name to conjure with. The gentleman mentioned has for the past sixteen years been president of our branch, Ye Olde New York, but at the last meeting of the branch, when the nomination committee for the election of officers for 1922 and 1923 submitted their report, which contained his name for president, he declined to allow it to be used for that office. That there were many earnest members present who, by their protests endeavored to move him from his resolution, goes without saying. For the past four years he has endeavored to free himself from the responsibilities of the office of president, and at the previous meeting when the nominating committee had been appointed to submit names for the various offices to the following meeting, May 4, he publicly announced that he would not be a candidate and for them not to bring in his name for the presidency. The committee was fully aware that he would not accept, but being fatalists, they felt

that something would turn up. However, we could not turn him from his resolve,

and as president he is out.

and as president he is out.

It would be a crime to close this article without first telling the retail butchers of the metropolitan district of the City of New York, which comprises the lower cities of Westchester County, New York, and certain of the cities of New Jersey, of their life-long obligations to August F. Grimm for his thousands of self-sacrifices. It may be that some members of the trade, particularly the younger cnes, will think me too effusive and inclined to flatter the parting guest, but those that have been with me in our work for any part of the past forty years will tell you that service to each other was the base of my judgment, and Gus Grimm has proved himself a thousand per cent and more.

more.

We can console ourselves with knowledge that he will continue his activity in the Branch. I am free to say that I would be painfully disappointed if he failed to do so, for his successor, who is a man of unquestioned ability, is entitled to his fully experienced and intelligent support—and he will get it.

Our new president. George Kramer.

Our new president, George Kramer, of Kramer Bros., Inc., was at the last meeting of the Ye Olde New York Branch, substituted by election as the successor of President August F. Grimm, who

had declined to continue.

had declined to continue.

George Kramer is well liked in the trade and is known as a manly man. He brings to the office the experiences and practice of improved systems and methods of business, which he will apply to what he deems is necessary for the Branch's improvement. From talks the Bulletin has had at various times, he sees a great future for the members of the Branch saving money through their association with the Branch. with the Branch.

with the Branch.

He is entitled to the steadfast co-operation of every member, both in and out of meetings. Knowing him as a thorough, experienced, successful business man, treat him as such, so that, if at times he submits ideas which he believes will be of benefit to the Branch, and which are too important to be disposed of offtand, they should receive the careful consideration of a committee which when it has they should receive the careful considera-tion of a committee, which when it has completed its labors, may report back for the Branch's action. If you want excellent results, always give the benefit of the doubt to the presiding officer.

While both of these men are well-known, not only to the various branches of their organization, but to the trade generally. it would be a pity to let this opportunity pass without quoting the above and thereby allowing the members of the United Master Butchers throughout the country to read the story as written by one who knows, who has worked with these men and who also made innumerable sacrifices for the good of the cause-Secretary William H. Hornidge.

EASTERN MEAT TRADE CONDITIONS.

Meat trade conditions for the week at New York, Philadelphia and Boston are reviewed by the United States Bureau of Markets as follows:

A generally weak undertone was notice-A generally weak undertone was noticeable on all classes of fresh meats this week. Veal was in best demand, and moved fairly readily at about steady prices. Beef. lamb, mutton and pork were weak to unevenly lower.

Receipts of beef were about the same as last week and of similar quality. Medium

last week and of similar quality. Medium and good grade steers predominated in the supply. Due to a generally slow demand there were some accumulations by midweek and prices ruled easier. Price rather than quality influenced buying. Receipts of cows were light at all markets. At Boston cows were neglected on account of

-If It's RANDALL'S It's Right-

Randall Compressed Air Sausage Stuffer with Bench Outfit

This is a most convenient and economical way to operate a Randall Compressed Air Stuffer. Motor, compressor and tank are very compactly arranged. Can furnish this complete equipment with all connections made as illustrated. Shipment can be made intact, which saves time and expense in connecting up in the sausage room. All that is necessary

is to run pipe from tank to stuffer. Furnished for 100-pound and 200-

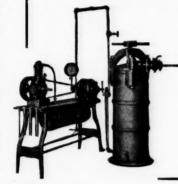
We can also furnish a compressor driven by belt or steam.

Manufactured and Sold by

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Manufacturers of Pork Packers' and Sausage Makers' Machinery

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their comparatively high cost as compared

Compared with last Friday, Boston is 50c to \$1 lower on cows, New York weak on both steers and cows and Philadelphia on both steers and cows and Philadelphia weak on steers, and weak to 50c lower on cows. Bull receipts were light, but were in slow demand. Today's prices as compared with a week ago are steady at Boston and New York and \$1 lower at Philadelphia. Kosher beef trade was limited, but prices ruled about steady at Boston and New York and \$1 lower at Philadelphia. adelphia.

Light receipts with small percentage of the better grade put the veal market in a more favorable position than was the case with other fresh meats. Demand was fair, although there was some accumulation of the poorer grades late in the week at New York and Philadelphia. Compared with a week ago, Boston and New York are about steady, Philadelphia weak to \$1 lower.

Aside from a limited demand for choice lamb, the market has been extremely draggy and weak. Spring lambs were offered in limited numbers, most sales during the week were forced and prices were very uneven. Compared with a week ago, Boston and New York are barely steady on desirable weight and grade, with others unevenly lower and Philadelphia \$1 to \$2 lower.

Receipts of mutton were about normal Receipts of mutton were about normal and consisted largely of heavyweight kind, which were undesirable for this reason. There was a poor demand with some accumulation, which forced prices to lower levels. Compared with a week ago, Boston \$1 to \$2 lower, New York barely steady, and Philadelphia \$1 to \$4 lower.

Demand for fresh pork was very limited and prices were weak to lower on loins, with other cuts uneven. Some loins were put in the freezer for lack of outlet except at considerably lower prices. Comrared with last Friday Boston \$1 to \$2 lower, New York and Philadelphia weak to \$1 lower on loins, with other cuts steady to 50c lower.

Boston closing firm on steers, steady on cows, veal, lamb and mutton and weak cows, veal, lamb and mutton and weak on pork—some pork will be carried over, other classes will clean up. New York closing steady on lamb, other classes weak. Some beef and pork will be carried over and veal, lamb and mutton will be fairly well cleaned up. Philadelphia closing generally weak on all classes, with effort being made to clear all coolers. Some beef will be carried in cars and some pork will be frozen. pork will be frozen.

For Sausage Makers

BELL'S Patent Parchment Lined

SAUSAGE BAGS

SAUSAGE SEASONINGS

For Samples and Prices, write

THE WM. G. BELL CO. **BOSTON**



HIGHEST QUALITY-LOWEST PRICE



HAY INK MFG. CO. 826-13th. St. Washington.D.C.

			TTMO
LIVE CATTLE.		FRESH PORK C	UTS.
ws, common to choice		Fresh pork loins, western	
lls, common to choice	4.00@6.25	Frozen pork loins	
dfers, mixed	0	Frozen pork tenderloins	45 @48
LIVE CALVES.		Shoulders, city	
	44 88 - 10 00	Butts, boneless, Western	23 @24
ves, veals, prime, per 100 lbs ves, veals, common to medium		Butts, regular, fresh city Butts, boneless, Western	
lves, veals, culls, per 100 lbs		Fresh hams, city	@
LIVE CHEED AND LAN	TDC	Fresh picnic hams, Western	14 @15
LIVE SHEEP AND LAN		Extra lean pork trimmings	17 @18
ring lambs, 100 lbseep, ewes, prime, 100 lbs		BONES, HOOFS AND	HORNS.
eep, ewes, common to good, per 100 lbs	4.00@ 7.00		
rep, wethers, clipped		Round shin bones, avg. 48 to 50 per 100 pcs	
LIVE HOGS.		Flat shin bones, avg. 40 to 45 lbs	., per
gs, heavy	11 006111 15	Black hoofs, per ton	
gs, medium		Striped hoofs, per ton	35.00@ 40.00
gs, 140 lbs	$.11.35@11\frac{1}{2}$	White hoofs, per ton	89.00@ 90.00
gs, under 70 lbsughs		100 pcs	110,00@125.00
		Horns, avg. 71/2 oz. and over, No.	18 225.00@275.00
DRESSED BEEF.		Horns, avg. 7½ oz. and over, No. Horns, avg. 7½ oz. and over, No.	
CITY DRESSED.			
oice, native, heavy	16 @17	BUTCHERS' SUN	
tive, common to fair	15 @16	Fresh steer tongues, L.C., trm'd	287c. a pound
WESTERN DRESSED BEEF.		Fresh steer tongues, untrimmed Calves' heads, scalded	@28c. a pound @65c. a piece
tive steers, 800@1,000 lbs	14 @141/4	Sweetbreads, veal	@75c. a pair
tive steers, 600@800 lbs	14 @ 141/2	Sweetbreads, beef	@45c. a pound
tive choice yearlings, 400@600 lbsestern steers, 600@800 lbs		Mutton kidneys	@ 6c. each
xas steers, 400@600 lbs	11 @12	Livers, beef	@18c. a pound @12c. a pound
xas steers, 400@600 lbs	11 @12	Oxtails	@ 5c. a pound
mmon to fair heifers	@1114	Rolls, beef	@18c. a pound
oice cows	@ 12	Tenderloin beef, Western	@50e. a pound @12e. a pair
esh bologna bulls			_ pen
BEEF CUTS.		BUTCHER'S F	AT.
	014-	Ordinary shop fat	@ 2
0. 1 ribs	City. 20 @22	Breast fat	@ 4
o. 2 ribs	18 @ 20	Edible suet	
o. 3 ribs	15 @17½ 25 @26	Shop bones, per cwt	
o. 2 loins	22 @24		
o. 3 loins	20 @22	SPICES.	
o. 2 hinds and ribs 19 @20	21 @23 21 @23	Dannes Mary	Whole. Ground
o. 3 hinds and ribs	191/2@201/2	Pepper, Sing., white	
o. 1 rounds	18 @20 141/2 @151/2	Pepper, red	36 40
o. 3 rounds @11	12 @141/2	Allspice	
o. 1 chucks	914@1014	Coriander	7 10
o. 2 chucks	9 @ 91/2	Cloves	
olognas 8½@10	10 @11	Ginger	
DRESSED CALVES			
reals, city dressed, good to prime, per 1		CURING MATE	KIALS.
eals, country dressed, per lb	22 923		Bbls. bags.
Vestern calves, choice Vestern calves, fair to good		Refined saltpetre, granulated	7% 7%
rassers and buttermilks	9 @12	Refined saltpetre, small crystals	8% 8%
DRESSED HOGS.		Refined nitrate soda, C. L., gran Refined nitrate soda, L. C. L., gr	
	Ø1011	Refined nitrate soda, C. L., crys	tal 5¼ 5¼
Hogs, heavy		Refined nitrate soda, L. C. L., cr Double refined nitrate of soda as	
logs, 160 lbs	@161/2	100 to 150 lbs. net, 1c over above	
logs, 140 lbs ligs, 80 down		anne	WYNO
		GREEN CALFS	
DRESSED SHEEP AND I			121/4-14 14 18 18 1bs.
Lambs, choice. spring		Prime No. 1 veals17 1.90	1bs. 1bs. up. 2.30 2.65 3.15
Sheep, choice	20 @21	Prime No. 2 veals15 1.70	2.05 2.40 2.90
Sheep, medium to good	17 @20	Buttermilk No. 114 1.60 Buttermilk No. 212 1.40	2.05 2.40 1.85 2.20
Sheep, culls	15 @17	Branded, grubby10 1.15	1.85 2.20 1.35 1.55 1.75
PROVISIONS.			At value-
(Jobbing Trade.)		DRESSED POU	LTRY.
Smoked hams, 10 lbs. avg			
Smoked hams, 12@14 avg		FRESH KILLI	
Ownshad mission Hebr		Fowls-Fresh-dry packed, milk Western, 60 to 65 lbs. to doze	
	15 @16		
Smoked picnics, heavy	17 @18	Western, 48 to 54 lbs. to doze	n, lb32 @33
Smoked picnics, heavy	17 @18	Western, 48 to 54 lbs. to doze. Western, 43 to 47 lbs. to doze	n, lb32 @33 n, lb30 @32
Smoked picnics, light. Smoked picnics, heavy. Smoked shoulders Smoked beef tongue, per lb. Smoked bacon (rib in) Dried beef sets. Pickled bellles, heavy.	36 @37 23 @24 42 @43	Western, 48 to 54 lbs. to doze	n, lb32 @33 n, lb30 @32 n, lb29 @31 n, lb27 @28

owls-Fresh-dry packed, corn fed-12 to box. Western, 60 to 65 lbs. to dozen, lb30	
Western, oo to oo los. to dozen, lo	@31
Western, 48 to 54 lbs. to dozen, lb31	
Western, 43 to 47 lbs. to dozen, 1b29 Western, 36 to 42 lbs. to dozen, 1b28	@31
Western, 36 to 42 lbs. to dozen, lb28 Western, 30 to 35 lbs. to dozen, lb26	@30
Western, under 30 lbs. to dozen, lb24	@25
fowls-Fresh-Dry Packed-Barrels, corn fed.	
Western, dry packed, 5 lbs. and over, lb.27	@29
Western, dry packed, 41/2 lbs. each, lb.28	@30
Western, dry packed, 31/2 lbs. each, lb26	@27
Western, dry packed, 3 lbs. and under, lb.24	@25
Old Cocks—Fresh—dry packed—boxes or bbls. Western, dry packed, boxes19	@20
Western, scalded, barrels	@19
Ducks, Long Island Spring	a
Squabe—	6210.00
Prime, white, 10 lbs. to doz., doz 9.50 Prime, white, 9 lbs. to doz., doz 8.50	
Prime white 8 lbs. to doz., doz6.50	@ 7.50
Prime, white, 7 lbs. to doz., doz5.00	@ 6.00
Prime, white, 8 lbs. to doz., doz6.50 Prime, white, 7 lbs. to doz., doz5.00 Prime, white, 6 to 6½ lbs. to doz., doz.4.00	@ 4.50
Culls, per dozen	@ 2.00
LIVE POULTRY.	
Fowls, via exp	@28
Spring broilers, via express	
Old roosters	@15
Ducks, via express	
Turkeys, via express35	@40
Geese, via express	@18
Pigeons, per pair	@40
Guineas, per pair	@65
BUTTER.	
	6901/
Creamery (92 score)	@361/2
Creamery, firsts	
Creamery, seconds33	@2314
Creamery, seconds	@321/2
EGGS.	- 1
Fresh gathered, extras, per doz31	@311/2
Fresh gathered, extra firsts	1/2 @ 29 1/2 · · ·
Fresh gathered, firsts26	½@28
Fresh gathered, checks, fair to choice, dry.22	
Fresh gathered, dirties, No. 124	@241/2
FERTILIZER MARKETS.	
BASIS NEW YORK DELIVERY.	0.000.00
Bone meal, steamed, 3 and 50, per ton.32.5	0@35.00
Bone meal, raw, per ton	
Dried blood, high grade	@ 2.75
Bone black, discard, sugar house del.,	9
New York, per ton del'd N. Ynom.14.0	0@18.00
C	
Ground tankage, N. Y., 9 to 12 per cent	
ammonia	0@ 3.15
ammonia	0@ 3.15
ammonia	0@ 3.15
ammonia 2.9 Fish scrap, dried, 11 per cent ammonia and 15 per cent bone phosphate, deliv- ered, Baltimore 3.7	0@ 3.15 5@ 4.00
ammonia 2.9 Fish scrap, dried, 11 per cent ammonia and 15 per cent bone phosphate, deliv- ered, Baltimore 3.7 Foreign fish guano, testing 18@14 per cent	0@ 3.15 5@ 4.00
ammonia 2.9 Fish scrap, dried, 11 per cent ammonia and 15 per cent bone phosphate, deliv- ered, Baltimore 3.7 Foreign fish guano, testing 13@14 per cent ammonia and about 10 per cent B. Phos.	0 @ 3.15 5 @ 4.00
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